

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Supersedes date 11-Oct-2022

Revision date 21-Oct-2025

Revision Number 5

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

1.1. Product identifier

Product Code(s) 14647
Safety data sheet number 14647
Product Name DOWSIL 87 ADDITIVE
Synonyms DOW CORNING 87 ADDITIVE
Pure substance/mixture Mixture

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

Recommended use road and construction products.
Coatings
Water-based process
Non-metal-surface treatment products
Industrial use
Professional use
Consumer use

1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

For further information, please contact

E-mail address SDS.EMEA@univarsolutions.com
Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

1.4. Emergency telephone number

Emergency Telephone SGS - +32 (0)3 575 55 55 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Skin corrosion/irritation	Category 2 - (H315)
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Chronic aquatic toxicity	Category 3 - (H412)
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2.2. Label elements**Signal word**

Warning

Hazard statements

H315 - Causes skin irritation

H412 - Harmful to aquatic life with long lasting effects

EUH208 - Contains 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1). May produce an allergic reaction.

Precautionary statements

P261 - Avoid breathing spray

P264 - Wash skin thoroughly after handling

P271 - Use only outdoors or in a well-ventilated area

P273 - Avoid release to the environment

P280 - Wear protective gloves

P501 - Dispose of contents/ container to an approved waste disposal plant

Unknown aquatic toxicity

Contains 0 % of components with unknown hazards to the aquatic environment.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable

3.2 Mixtures

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
TRIETHOXYOCTYL SILANE 2943-75-1	>= 11.0 - <= 19.0 %	220-941-2	-	Skin Irrit. 2 (H315)	-	-	-
DIMETHYL SILOXANE WITH AMINOETHYLAMIN OPROPYL SILSESQUIOXANE, HYDROXY TERM 68554-54-1	>= 1.0 - <= 1.4 %	614-604-2	-	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	-	-	-

MONOPROPYLENE GLYCOL 57-55-6	>= 0.8 - <= 1.1 %	200-338-0	-	Not Classified	-	-	-
DODECAN-1-OL, ETHOXYLATED 9002-92-0	>= 0.8 - <= 1.1 %	-	-	Eye Irrit. 2 (H319) Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412)	-	1	-
ALCOHOLS, C12-13, ETHOXYLATED 66455-14-9	<= 1.1 %	-	-	Eye Irrit. 2 (H319)	-	-	-
HEXAMETHYLDISILOXANE 107-46-0	>= 0.23 - <= 0.4 %	203-492-7	01-8024631995-0-XXX X	Aquatic Chronic 2 (H411) Aquatic Acute 1 (H400) Flam. Liq. 2 (H225)	-	-	-
OCTAMETHYLCYCLOTETRAILOXANE 556-67-2	>= 0.07 - <= 0.11 %	209-136-7 (014-018-00-1)	-	Flam. Liq. 3 (H226) Aquatic Chronic 1 (H410) Repr. 2 (H361f)	-	-	10
CETRIMONIUM CHLORIDE 112-02-7	= 0.06 - <= 0.084 %	203-928-6	-	Acute Tox. 4 (H302) Skin Corr. 1C (H314) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	10	1
HEXADECYLTRIMETHYLAMMONIUM ACETATE 51374-75-5	>= 0.014 - <= 0.024 %	807-818-4	-	Acute Tox. 4 (H302) Acute Tox. 3 (H311) Skin Corr. 1C (H314) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	10	1
HEXADECYLDIMETHYLAMINE 112-69-6	>= 0.0057 - <= 0.0067 %	203-997-2	-	Acute Tox. 4 (H302) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	100	10
5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) 55965-84-9	>= 0.0012 - <= 0.0014 %	611-341-5 613-167-00-5	-	Skin Corr. 1C (H314) Aquatic Chronic 1 (H410) Aquatic Acute 1 (H400) Skin Sens. 1A (H317) Acute Tox. 2 (H330) Acute Tox. 3 (H301) Acute Tox. 2 (H310) Eye Dam. 1 (H318)	Eye Irrit. 2 :: 0.06%<=C<0.6 % Skin Corr. 1C :: C>=0.6% Skin Irrit. 2 :: 0.06%<=C<0.6 % Skin Sens. 1A :: C>=0.0015% Eye Dam. 1 :: C>=0.6%	100	100

Full text of H- and EUH-phrases: see section 16

Chemical name	CAS No	SVHC candidates
OCTAMETHYLCYCLOTETRAILOXANE	556-67-2	X

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	First aid personnel should wear appropriate protective equipment during any rescue. Use personal protection recommended in Section 8.
Inhalation	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Get medical attention if symptoms occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms occur.
Skin contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Get medical attention if symptoms occur.
Ingestion	Rinse mouth thoroughly with water. Do NOT induce vomiting. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	The product contains a sensitising substance which may provoke an allergic reaction among sensitive individuals. May cause an allergic skin reaction.
Dermal	Causes skin irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat any burns as thermal burns, after decontamination. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Alcohol resistant foam. Carbon dioxide (CO ₂). Dry sand.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	When heated and in case of fire, toxic vapours/gases may be formed. Flash back possible over considerable distance. Exposure to combustion products may be a hazard to health. Flammable concentrations of vapor can accumulate at temperatures above flash point; see Section 9. Flammable mixtures may exist within the vapor space of containers at room temperature. Containers can burst violently when heated, due to excess pressure build-up. Vapours may form explosive mixtures with air.
Hazardous combustion products	Carbon oxides. Silicon oxides. Nitrogen oxides (NO _x). Ethanol. Formaldehyde. Aldehydes. Alcohols. Ether. Ketones. Low molecular weight hydrocarbons.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with skin, eyes and inhalation of vapours. Remove all sources of ignition. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Ground and bond container and receiving equipment. Vapours may form explosive mixtures with air. Do not allow run-off from fire-fighting to enter drains or water courses. Follow precautions for safe handling described in this safety data sheet.
Other information	Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Prevent further leakage or spillage if safe to do so.
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6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Do not rinse off the spillage and spill site with water, unless the water is going to be collected and sent for recovery or disposal. Use non-sparking tools. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Suppress (knock down) gases/vapours/mists with a water spray jet.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with skin, eyes and inhalation of vapours. Do not swallow. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Avoid spilling. Avoid release to the environment. Handle in accordance with good industrial hygiene and safety practice. Empty containers retain product residue and can be hazardous. Use explosion-proof electrical, ventilating and lighting equipment. Ground and bond container and receiving equipment. This material contains synthetic polymer microparticles (SPM) within the meaning of Commission Regulation (EU) 2023/2055. Identify potential sources of SPM emissions during handling, use and transport of this material. Implement measures to prevent them. Consider all stages of relevance to potential releases of SPM to the environment, including and not limited to: facility set-up, containment systems, employee equipment, bulk transport, loading, unloading, sampling, filtering, packaging, filling, transport, plant/facility maintenance, recycling and disposal. Establish and enforce procedures. Provide employees with adequate training and equipment. Keep vessels, storage tanks and containers in good condition, to help avoid holes, cracks or leaks. Maintain loading/unloading and transfer equipment with good seals. Place collecting trays under discharge/loading valves and connecting points. Transfer and
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filling equipment should be appropriate for the task and maintained in good condition. Proper container and packaging selection can help reducing damage and spill. For handling of water from rinsing tanks, vessels, pumps and other equipment, as well as from rinsing of packaging and tankers see Section 13.

General hygiene considerations Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Keep in properly labelled containers. Store locked up. Keep away from open flames, hot surfaces and sources of ignition. Store away from the following materials. Strong oxidising agents.

7.3. Specific end use(s)

Specific use(s)

See section 1 for more information.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	United Kingdom
MONOPROPYLENE GLYCOL 57-55-6	TWA: 150 ppm TWA: 470 mg/m ³ (Total vapour and particulates) TWA: 10 mg/m ³ (Particulates)

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
TRIETHOXYOCTYLSILANE 2943-75-1		2.5 mg/kg bw/day [4] [6]	17.6 mg/m ³ [4] [6]
MONOPROPYLENE GLYCOL 57-55-6			168 mg/m ³ [4] [6] 10 mg/m ³ [5] [6]
DODECAN-1-OL, ETHOXYLATED 9002-92-0		1.4 mg/kg bw/day [4] [6]	4.93 mg/m ³ [4] [6]
ALCOHOLS, C12-13, ETHOXYLATED 66455-14-9		2080 mg/kg bw/day [4] [6]	294 mg/m ³ [4] [6]
HEXAMETHYLDISILOXANE 107-46-0		333 mg/kg bw/day [4] [6]	53.4 mg/m ³ [4] [6]
OCTAMETHYLCYCLOTETRAILOXANE 556-67-2			73 mg/m ³ [4] [6] 73 mg/m ³ [5] [6]
CETRIMONIUM CHLORIDE 112-02-7		4.7 mg/kg bw/day [4] [6]	3.32 mg/m ³ [4] [6]
HEXADECYLDIMETHYLAMINE			1 mg/m ³ [4] [6]

Chemical name	Oral	Dermal	Inhalation
112-69-6			1 mg/m ³ [4] [7] 1 mg/m ³ [5] [6] 1 mg/m ³ [5] [7]
5-CHLORO-2-METHYL-4-ISOTHIAZO LIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) 55965-84-9			0.02 mg/m ³ [5] [6] 0.04 mg/m ³ [5] [7]

[4] Systemic health effects.
 [5] Local health effects.
 [6] Long term.
 [7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
TRIETHOXYOCTYLSILANE 2943-75-1	1.25 mg/kg bw/day [4] [6]	1.25 mg/kg bw/day [4] [6]	4.3 mg/m ³ [4] [6]
MONOPROPYLENE GLYCOL 57-55-6			50 mg/m ³ [4] [6] 10 mg/m ³ [5] [6]
DODECAN-1-OL, ETHOXYLATED 9002-92-0	0.5 mg/kg bw/day [4] [6]		0.87 mg/m ³ [4] [6]
ALCOHOLS, C12-13, ETHOXYLATED 66455-14-9	25 mg/kg bw/day [4] [6]	1250 mg/kg bw/day [4] [6]	87 mg/m ³ [4] [6]
HEXAMETHYLDISILOXANE 107-46-0	0.27 mg/kg bw/day [4] [6]	167 mg/kg/day [4] [6]	13.3 mg/m ³ [4] [6]
OCTAMETHYLCYCLOTETRAILOXA NE 556-67-2	3.7 mg/kg bw/day [4] [6]		13 mg/m ³ [4] [6] 13 mg/m ³ [5] [6]
CETRIMONIUM CHLORIDE 112-02-7	2.83 mg/kg bw/day [4] [6]		0.98 mg/m ³ [4] [6]
HEXADECYLDIMETHYLAMINE 112-69-6	0.5 mg/kg bw/day [4] [6]		
5-CHLORO-2-METHYL-4-ISOTHIAZO LIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) 55965-84-9	0.09 mg/kg bw/day [4] [6] 0.11 mg/kg bw/day [4] [7]		0.02 mg/m ³ [5] [6] 0.04 mg/m ³ [5] [7]

[4] Systemic health effects.
 [5] Local health effects.
 [6] Long term.
 [7] Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
MONOPROPYLENE GLYCOL 57-55-6	260 mg/L	183 mg/L	26 mg/L		
DODECAN-1-OL, ETHOXYLATED 9002-92-0	1.39 µg/L	2.37 µg/L	0.139 µg/L	0.237 µg/L	

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
ALCOHOLS, C12-13, ETHOXYLATED 66455-14-9	0.022 mg/l	0.022 mg/l	0.022 mg/l	0.00028 mg/L	
HEXAMETHYLDISILOXANE 107-46-0	0.002 mg/L	0.003 mg/L	0.0 mg/l		
OCTAMETHYLCYCLOTRASILOXANE 556-67-2	0.0015 mg/L		0.00015 mg/L		
CETRIMONIUM CHLORIDE 112-02-7	0.00042 mg/l	0.000012 mg/l	0.000042 mg/l		
HEXADECYLDIMETHYLAMINE 112-69-6	0.00042 mg/l	0.26 µg/L	0.03 µg/L		
5-CHLORO-2-METHYL-4-ISOTHAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHAZOL-3-ONE [EC NO. 220-239-6] (3:1) 55965-84-9	0,00339 mg/l	0,00339 mg/l	0,00339 mg/l	3.39 µg/L	

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
TRIETHOXYOCTYLSILANE 2943-75-1	19 mg/kg dry weight dw	1.9 mg/kg dry weight dw		3.8 mg/kg dry weight dw	56 mg/kg food
MONOPROPYLENE GLYCOL 57-55-6	572 mg/kg sediment dw	57.2 mg/kg sediment dw	20 g/L	50 mg/kg soil dw	
DODECAN-1-OL, ETHOXYLATED 9002-92-0	25.9 µg/kg sediment dw	2.59 µg/kg sediment dw	0.25 mg/L	4.35 µg/kg soil dw	
ALCOHOLS, C12-13, ETHOXYLATED 66455-14-9	5.91 mg/kg	5.91 mg/kg	10 g/L	1 mg/kg soil dw	
HEXAMETHYLDISILOXANE 107-46-0	8.9 mg/kg sediment dw	0.890 mg/kg sediment dw	10 mg/L	0.083 mg/kg soil dw	5.3 mg/kg food
OCTAMETHYLCYCLOTRASILOXANE 556-67-2	3 mg/kg sediment dw	0.3 mg/kg sediment dw	10 mg/L	0.54 mg/kg soil dw	41 mg/kg food
CETRIMONIUM CHLORIDE 112-02-7	68 mg/kg	6.8 mg/kg	0.4 mg/l	1.66 mg/kg	
HEXADECYLDIMETHYLAMINE 112-69-6	1.25 mg/kg sediment dw	0.125 mg/kg sediment dw	130 µg/L	1 mg/kg soil dw	
5-CHLORO-2-METHYL-4-ISOTHAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHAZOL-3-ONE [EC	0.027 mg/kg sediment dw	0.027 mg/kg sediment dw	0.23 mg/L	0.01 mg/kg soil dw	

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
NO. 220-239-6] (3:1) 55965-84-9					

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Use eye protection according to EN 166.

Hand protection Wear suitable gloves. Impervious gloves.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
	Wear protective butyl rubber gloves	> 0.35 mm	> 240 minutes
	Rubber (natural, latex)	> 0.35 mm	> 240 minutes
	Wear protective Neoprene™ gloves	> 0.35 mm	> 240 minutes
	Nitrile/butadiene rubber ("nitrile" or "NBR").	> 0.35 mm	> 240 minutes
	Ethyl vinyl alcohol laminate ("EVAL")	> 0.35 mm	> 240 minutes
	Polyvinyl chloride (PVC)	> 0.35 mm	> 240 minutes

Skin and body protection Wear appropriate clothing to prevent reasonably probable skin contact.

Respiratory protection Use appropriate respiratory protection.
Recommended filter type: Organic gases and vapours filter conforming to EN 14387. Type AP2.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state Liquid
Appearance Liquid
Colour white
Odour Not significant.
Odour threshold No information available

Property	Values
Melting point / freezing point	
Initial boiling point and boiling range	> 35 °C
Flammability	
Flammability Limit in Air	
Upper flammability or explosive limits	
Lower flammability or explosive limits	
Flash point	45 °C
Autoignition temperature	
Decomposition temperature	

Remarks • Method

Not determined.
 @ 760 mmHg.
 No information available.
 No information available.

Closed cup.
 No information available.
 No information available.

pH	4 - 5.5	
pH (as aqueous solution)		No information available.
Kinematic viscosity		No information available.
Dynamic viscosity	50 mPa s	
Water solubility		Not determined.
Solubility(ies)		No information available.
Partition coefficient		Not determined.
Vapour pressure		No information available.
Relative density	1	
Bulk density		No information available
Liquid Density	No information available	No information available
Relative vapour density		No information available.
Particle characteristics		Not applicable.
Particle Size	No information available	
Particle Size Distribution	No information available	
Explosive properties	Not considered to be explosive.	
Oxidising properties	Does not meet the criteria for classification as oxidising	

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No known effects under normal use conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions The following materials may react with the product:. Strong oxidising agents. Vapours may form explosive mixtures with air.

10.4. Conditions to avoid

Conditions to avoid Avoid static discharge.

10.5. Incompatible materials

Incompatible materials Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon oxides. Silicon oxides. Nitrogen oxides (NOx). Ethanol. Formaldehyde. Aldehydes. Alcohols. Ether. Ketones. Low molecular weight hydrocarbons.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation	Inhalation of vapours in high concentration may cause irritation of respiratory system.
Eye contact	May cause slight eye irritation.
Skin contact	The product contains a sensitising substance which may provoke an allergic reaction among sensitive individuals. May cause an allergic skin reaction. Causes skin irritation. Brief contact may cause moderate skin irritation with local redness. Repeated contact may cause flaking and softening of skin.
Ingestion	May cause discomfort if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

Oral LD50	Oral LD50 > 5000 mg/kg
Dermal LD50	Dermal LD50 > 5000 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
TRIETHOXYOCTYLSILANE	5110 mg/kg (Rat)	= 6730 mg/kg (Rabbit) > 8000 mg/kg (Rabbit)	> 22 ppm (Rat) 4 h
MONOPROPYLENE GLYCOL	> 20000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	317.042 mg/l (Rat) (2h)
DODECAN-1-OL, ETHOXYLATED	9060 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 1.6 mg/l (Rat) 4h
ALCOHOLS, C12-13, ETHOXYLATED	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 1.6 mg/l (Rat) (4h)
HEXAMETHYLDISILOXANE	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rat)	= 106 mg/l (Rat) 4 h
OCTAMETHYLCYCLOTETRAS ILOXANE	> 4800 mg/kg (Rat)	> 2400 mg/kg (Rat)	= 36 mg/L (Rat) 4 h
CETRIMONIUM CHLORIDE	= 699 mg/kg (Rat)	-	-
HEXADECYLTRIMETHYLAMM ONIUM ACETATE	= 1550 mg/kg (Rat)	= 528 mg/kg (Rat)	-
HEXADECYLDIMETHYLAMINE	= 1015 mg/kg (Rat)	= 4.29 mL/kg (Rabbit)	-
5-CHLORO-2-METHYL-4-ISOT HIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H -ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1)	= 66 mg/kg (Rat)	= 87.12 mg/kg (Rabbit)	= 0.171 mg/l (Rat) (4h)

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Causes skin irritation. Brief contact may cause moderate skin irritation with local redness. Repeated contact may cause flaking and softening of skin.
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TRIETHOXYOCTYLSILANE (2943-75-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes skin

					irritation Brief contact may cause moderate skin irritation with local redness. Prolonged contact may cause moderate skin irritation with local redness.
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DIMETHYL SILOXANE WITH AMINOETHYLAMINOPROPYL SILSESQUIOXANE, HYDROXY TERM (68554-54-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes skin irritation Brief contact may cause skin irritation with local redness.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Prolonged contact is essentially nonirritating to skin. Repeated contact may cause flaking and softening of skin.

DODECAN-1-OL, ETHOXYLATED (9002-92-0)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Brief contact may cause skin irritation with local redness.

ALCOHOLS, C12-13, ETHOXYLATED (66455-14-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Prolonged contact may cause slight skin irritation with local redness

HEXAMETHYLDISILOXANE (107-46-0)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Brief contact is essentially non-irritating to skin. Prolonged contact may cause redness and irritation May cause more severe response on covered skin (under clothing, gloves).

OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Brief contact is essentially non-irritating to skin.

CETRIMONIUM CHLORIDE (112-02-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes severe burns Symptoms may include pain, severe local redness and tissue damage.

HEXADECYLTRIMETHYLAMMONIUM ACETATE (51374-75-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes severe burns Symptoms may include pain, severe local redness and tissue damage.

HEXADECYLDIMETHYLAMINE (112-69-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes severe burns Symptoms may include pain, severe local redness and tissue damage.

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 404: Acute Dermal Irritation/Corrosion	Rabbit	Dermal		4 hours	Corrosive Causes severe burns Symptoms may include pain, severe local redness and tissue damage.

Serious eye damage/eye irritation May cause slight eye irritation.

TRIETHOXYOCTYLSILANE (2943-75-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					May cause slight eye irritation Corneal injury is unlikely

DIMETHYL SILOXANE WITH AMINOETHYLAMINOPROPYL SILSESQUIOXANE, HYDROXY TERM (68554-54-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes serious eye irritation May cause corneal injury.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					May cause slight eye irritation Corneal injury is unlikely Mist may cause eye irritation.

DODECAN-1-OL, ETHOXYLATED (9002-92-0)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes serious eye irritation

ALCOHOLS, C12-13, ETHOXYLATED (66455-14-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes serious eye irritation

HEXAMETHYLDISILOXANE (107-46-0)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					May cause slight eye irritation Corneal injury is unlikely

OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					non-irritant

CETRIMONIUM CHLORIDE (112-02-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes serious eye damage May cause permanent damage if eye is not immediately irrigated. Causes eye burns

HEXADECYLTRIMETHYLAMMONIUM ACETATE (51374-75-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes serious eye damage May cause permanent damage if eye is not immediately irrigated. Causes eye burns

HEXADECYLDIMETHYLAMINE (112-69-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes serious eye damage May cause permanent damage if eye is not immediately irrigated. Causes eye burns

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
	Rabbit	eye			Corrosive Causes serious eye damage May cause permanent damage if eye is not immediately irrigated. Causes

					eye burns
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Respiratory or skin sensitisation The product contains a sensitising substance which may provoke an allergic reaction among sensitive individuals. May cause an allergic skin reaction.

TRIETHOXYOCTYLSILANE (2943-75-1)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	Not a skin sensitiser

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Exposure route	Results
	Human evidence	Dermal	Not a skin sensitiser

DODECAN-1-OL, ETHOXYLATED (9002-92-0)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	Not a skin sensitiser

ALCOHOLS, C12-13, ETHOXYLATED (66455-14-9)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	Not a skin sensitiser

HEXAMETHYLDISILOXANE (107-46-0)

Method	Species	Exposure route	Results
	Human evidence	Dermal	Not a skin sensitiser
	Guinea pig	Dermal	Not a skin sensitiser

OCTAMETHYLCYCLOTETRAISILOXANE (556-67-2)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	Not a skin sensitiser

CETRIMONIUM CHLORIDE (112-02-7)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	Not a skin sensitiser

HEXADECYLTRIMETHYLAMMONIUM ACETATE (51374-75-5)

Method	Species	Exposure route	Results
	Guinea pig	Dermal	Not a skin sensitiser

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Exposure route	Results
OECD Test No. 406: Skin Sensitisation	Guinea pig	Dermal	May cause an allergic skin reaction

Germ cell mutagenicity No information available.

Component Information

TRIETHOXYOCTYLSILANE (2943-75-1)

Method	Species	Results
	in vitro	Negative

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Results
	in vitro	Negative
		Negative Did not show mutagenic effects in animal experiments

DODECAN-1-OL, ETHOXYLATED (9002-92-0)

Method	Species	Results
	in vitro	Negative

HEXAMETHYLDISILOXANE (107-46-0)

Method	Species	Results
	in vitro	Negative
		Negative Did not show mutagenic effects in animal experiments

OCTAMETHYLCYCLOTETRAISILOXANE (556-67-2)

Method	Species	Results
	in vitro	Negative
		Negative Did not show mutagenic effects in animal experiments

CETRIMONIUM CHLORIDE (112-02-7)

Method	Species	Results
	in vitro	Negative

HEXADECYLTRIMETHYLAMMONIUM ACETATE (51374-75-5)

Method	Species	Results
	in vitro	Negative

HEXADECYLDIMETHYLAMINE (112-69-6)

Method	Species	Results
	in vitro	Negative
		Did not show mutagenic effects in animal experiments

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Results
	in vitro	Negative
In vivo Micronucleus Test	in vivo Rat	Negative
In vivo Micronucleus Test	in vivo Mouse	Negative

Carcinogenicity

No information available.

Component Information

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Results
		Did not cause cancer in laboratory animals.

HEXAMETHYLDISILOXANE (107-46-0)

Method	Species	Results
		Kidney effects and/or tumors have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans. Early onset of testicular cell tumors has been observed that are spontaneous and common in rats. These effects are believed to be species specific and

		unlikely to occur in humans
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OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)

Method	Species	Results
		Results from a 2 year repeated vapour inhalation exposure study to rats of octamethylcyclotetrasiloxane (D4) indicate effects (benign uterine adenomas) in the uterus of female animals. This finding occurred at the highest exposure dose (700 ppm) only. Studies to date have not demonstrated if these effects occur through pathways that are relevant to humans. Repeated exposure in rats to D4 resulted in protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin accumulation the relevance of this finding to humans is unknown.

HEXADECYLDIMETHYLAMINE (112-69-6)

Method	Species	Results
		Did not cause cancer in laboratory animals.

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Results
OECD 453	Rat	Did not cause cancer in laboratory animals.

Reproductive toxicity

No information available.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	United Kingdom
OCTAMETHYLCYCLOTETRASILOXANE	Repr. 2

TRIETHOXYOCTYLSILANE (2943-75-1)

Method	Species	Results
		This product does not contain any known or suspected reproductive hazards

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Results
		In animal studies, did not interfere with reproduction In animal studies, did not interfere with fertility

HEXAMETHYLDISILOXANE (107-46-0)

Method	Species	Results
		This product does not contain any known or suspected reproductive hazards

OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)

Method	Species	Results
		Suspected of damaging fertility

CETRIMONIUM CHLORIDE (112-02-7)

Method	Species	Results
		This product does not contain any known or suspected reproductive hazards

HEXADECYLTRIMETHYLAMMONIUM ACETATE (51374-75-5)

Method	Species	Results
		This product does not contain any known or suspected reproductive hazards

HEXADECYLDIMETHYLAMINE (112-69-6)

Method	Species	Results
		This product does not contain any known or suspected reproductive hazards

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Results
		In animal studies, did not interfere with reproduction

STOT - single exposure

No information available.

TRIETHOXYOCTYLSILANE (2943-75-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Evaluation of available data suggests that this material is not an STOT-SE toxicant

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Evaluation of available data suggests that this material is not an STOT-SE toxicant

HEXAMETHYLDISILOXANE (107-46-0)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Evaluation of available data suggests that this material is not an STOT-SE toxicant

OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Evaluation of available data

					suggests that this material is not an STOT-SE toxicant
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CETRIMONIUM CHLORIDE (112-02-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Corrosive Not classified Upper respiratory tract irritation or corrosivity may be expected.

HEXADECYLTRIMETHYLAMMONIUM ACETATE (51374-75-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Corrosive Material is not classified as a respiratory irritant; however, Upper respiratory tract irritation or corrosivity may be expected.

HEXADECYLDIMETHYLAMINE (112-69-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Corrosive Material is not classified as a respiratory irritant; however, Upper respiratory tract irritation or corrosivity may be expected.

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Evaluation of available data suggests that this material is not an STOT-SE toxicant

STOT - repeated exposure

No information available.

Component Information

TRIETHOXYOCTYLSILANE (2943-75-1)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					In animals, effects have been reported on the following organs: Urinary tract Findings from a combined repeated-dose toxicity study with

					reproductive/developmental screening endpoints on n-octyltriethoxysilane have shown neurological effects in rats at high doses (1000 mg/kg). Paralysis and paresis of the limbs, and demyelination of the brain, spinal cord, sciatic and tibial nerves was noted in some animals.
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MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					In rare cases, repeated excessive exposure to propylene glycol may cause central nervous system effect.

DODECAN-1-OL, ETHOXYLATED (9002-92-0)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

HEXAMETHYLDISILOXANE (107-46-0)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					In animals, effects have been reported on the following organs: Liver Testes Kidney However, the effects are species specific and are not relevant to humans. This material contains hexamethyldisiloxane (HMDS). Repeated inhalation exposure in rats to HMDS resulted in protoporphyrin accumulation in the liver. Without knowledge of the specific mechanism leading to the protoporphyrin

					accumulation the relevance of this finding to humans is unknown.
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OCTAMETHYLCYCLOTETRAILOXANE (556-67-2)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					In animals, effects have been reported on the following organs: Kidney Liver respiratory tract Female reproductive organs

CETRIMONIUM CHLORIDE (112-02-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Based on available data, repeated exposures are not anticipated to cause significant adverse effects

HEXADECYLTRIMETHYLAMMONIUM ACETATE (51374-75-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Based on available data, repeated exposures are not anticipated to cause significant adverse effects

HEXADECYLDIMETHYLAMINE (112-69-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Based on available data, repeated exposures are not anticipated to cause significant adverse effects

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Excessive exposure may cause irritation to upper respiratory tract (nose and throat).

Aspiration hazard

Based on available data the classification criteria are not met.

Other adverse effects

No information available.

SECTION 12: Ecological information**12.1. Toxicity**

Ecotoxicity Harmful to aquatic life with long lasting effects.

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

TRIETHOXYOCTYLSILANE (2943-75-1)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	Oncorhynchus mykiss (rainbow trout)	LC50	> 0.055 mg/L	96 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Daphnia magna	EC50	> 0.049 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	ErC50	> 0.13 mg/L	72 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	NOEC	> 0.13 mg/L	72 hours	
OECD Test No. 209: Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)	activated sludge	EC50	> 1000 mg/L	3 hours	
Chronic aquatic toxicity	Pimephales promelas	NOEC	> 0.036 mg/L	32 days	
Chronic aquatic toxicity	Daphnia magna	NOEC	>= 0.199 mg/L	21 days	

MONOPROPYLENE GLYCOL (57-55-6)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	Oncorhynchus mykiss (rainbow trout)	LC50	40613 mg/L	96 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Ceriodaphnia dubia	LC50	18340 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	ErC50	19000 mg/L	96 hours	
	Pseudomonas putida	NOEC	> 20000 mg/L	18 hours	
Chronic aquatic toxicity	Ceriodaphnia dubia	NOEC	13020 mg/L	7 days	

DODECAN-1-OL, ETHOXYLATED (9002-92-0)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
	Oncorhynchus mykiss (rainbow trout)	LC50	3.3 mg/L	96 hours	
	Daphnia magna	EC50	> 1 - 10 mg/L	48 hours	
	Pseudokirchneriella subcapitata	EC50	> 0.1 - 1 mg/L	72 hours	
	Pseudokirchneriella subcapitata	NOEC	> 0.1 - 1 mg/L	72 hours	
	Lepomis macrochirus	NOEC	> 0.1 - 1 mg/L	30 days	
	Daphnia magna	NOEC	> 0.1 - 1 mg/L	21 days	

HEXAMETHYLDISILOXANE (107-46-0)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
	Oncorhynchus mykiss (rainbow trout)	LC50	0.46 mg/L	96 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Selenastrum capricornutum	ErC50	> 0.55 mg/L	72 hours	
	Daphnia magna	NOEC	0.08 mg/L	21 days	

OCTAMETHYLCYCLOTETRAILOXANE (556-67-2)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
Acute toxicity	Oncorhynchus mykiss (rainbow trout)	LC50	> 0.022 mg/L	96 hours	
Acute toxicity	Cyprinodon variegatus	LC50	> 0.0063 mg/L	14 days	
Acute toxicity	Mysidopsis bahia	EC50	> 0.0091 mg/L	96 hours	
Acute toxicity	Daphnia magna	EC50	> 0.015 mg/L	48 hours	
Acute toxicity	Pseudokirchneriella subcapitata	ErC50	> 0.022 mg/L	96 hours	
Acute toxicity	Pseudokirchneriella subcapitata	EC10	>= 0.022 mg/L	96 hours	
Chronic aquatic toxicity	Oncorhynchus mykiss (rainbow trout)	NOEC	>= 0.0044 mg/L	93 days	
Chronic aquatic toxicity	Daphnia magna	NOEC	0.0079 mg/L	21 days	

CETRIMONIUM CHLORIDE (112-02-7)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	Brachydanio rerio	LC50	0.19 mg/L	96 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Daphnia magna	EC50	0.012 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	ErC50	0.113 mg/L	72 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	NOEC	0.068 mg/L	72 hours	
DIN 38 412 Part 8	Pseudomonas putida	EC50	0.96 mg/L	16 hours	
Chronic aquatic toxicity	Pimephales promelas	NOEC	0.0322 mg/L	28 days	
Chronic aquatic toxicity	Daphnia magna	NOEC	0.00415 mg/L	21 days	

HEXADECYLTRIMETHYLAMMONIUM ACETATE (51374-75-5)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	Brachydanio rerio	EC50	0.19 mg/L	96 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Daphnia magna	EC50	0.28 mg/L	48 hours	

OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	ErC50	0.08 mg/L	72 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	NOEC	0.04 mg/L	72 hours	
Chronic aquatic toxicity	Pimephales promelas	NOEC	0.032 mg/L	28 days	
Chronic aquatic toxicity	Daphnia magna	NOEC	> 0.001 - < 0.01 mg/L	21 days	

HEXADECYLDIMETHYLAMINE (112-69-6)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
	Oncorhynchus mykiss (rainbow trout)	LC50	0.18 mg/L	96 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Daphnia magna	EC50	66.5 µg/l	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Desmodesmus subspicatus	ErC50	9.9 µg/l	72 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Desmodesmus subspicatus	NOEC	0.5 µg/l	72 hours	
	activated sludge	EC50	13 mg/L	3 hours	
Chronic aquatic toxicity	Daphnia magna	NOEC	0.036 mg/L	21 days	

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test or Equivalent.	Oncorhynchus mykiss (rainbow trout)	LC50	0.19 mg/L	96 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test or Equivalent.	Daphnia magna	LC50	0.16 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Skeletonema costatum	NOEC	0.00049 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Skeletonema costatum	ErC50	0.0052 mg/L	48 hours	
Chronic toxicity	Oncorhynchus mykiss (rainbow trout)	NOEC	0.05 mg/L	14 days	
Chronic toxicity	Daphnia magna	NOEC	0.1 mg/L	21 days	

12.2. Persistence and degradability

Persistence and degradability No information available.

TRIETHOXYOCTYLSILANE (2943-75-1)

Method	Exposure time	Value	Results
OECD Test No. 301D: Ready Biodegradability: Closed Bottle Test (TG 301 D)	28 days	Biodegradation 31.5%	Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions.

MONOPROPYLENE GLYCOL (57-55-6)

Method	Exposure time	Value	Results
OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F) or Equivalent.	28 days	Biodegradation 81%	Readily biodegradable
OECD Test No. 306: Biodegradability in Seawater or Equivalent.	64 days	Biodegradation 96%	Readily biodegradable

DODECAN-1-OL, ETHOXYLATED (9002-92-0)

Method	Exposure time	Value	Results
			Readily biodegradable

HEXAMETHYLDISILOXANE (107-46-0)

Method	Exposure time	Value	Results
OECD Test No. 301C: Ready Biodegradability: Modified MITI Test (I) (TG 301 C)	28 days	Biodegradation 2 %	Expected to biodegrade very slowly

OCTAMETHYLCYCLOTETRAISILOXANE (556-67-2)

Method	Exposure time	Value	Results
OECD 310	28 days	Biodegradation 3.7%	Expected to biodegrade very slowly

CETRIMONIUM CHLORIDE (112-02-7)

Method	Exposure time	Value	Results
OECD Test No. 301D: Ready Biodegradability: Closed Bottle Test (TG 301 D)	28 days	Biodegradation > 60 %	Readily biodegradable

HEXADECYLTRIMETHYLAMMONIUM ACETATE (51374-75-5)

Method	Exposure time	Value	Results
OECD Test No. 301D: Ready Biodegradability: Closed Bottle Test (TG 301 D)	28 days	Biodegradation 60%	

HEXADECYLDIMETHYLAMINE (112-69-6)

Method	Exposure time	Value	Results
OECD Test No. 301B: Ready Biodegradability: CO ₂ Evolution Test (TG 301 B)	28 days	Biodegradation > 60 %	Readily biodegradable

5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) (55965-84-9)

Method	Exposure time	Value	Results
OECD Test No. 302B: Inherent	10 days	Biodegradation < 50 %	Rapidly biodegradable

Biodegradability: Zahn-Wellens/ EVPA Test			
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12.3. Bioaccumulative potential**Bioaccumulation**

There is no data for this product.

Component Information

Chemical name	Partition coefficient
TRIETHOXYOCTYLSILANE	6.41
MONOPROPYLENE GLYCOL	-1.07
DODECAN-1-OL, ETHOXYLATED	1.937
HEXAMETHYLDISILOXANE	5.06
OCTAMETHYLCYCLOTETRASILOXANE	6.49
CETRIMONIUM CHLORIDE	3.08
HEXADECYLTRIMETHYLAMMONIUM ACETATE	> 6.91
HEXADECYLDIMETHYLAMINE	4.6
5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1)	>-0.71 - 0.75

12.4. Mobility in soil**Mobility in soil**

No information available.

12.5. Results of PBT and vPvB assessment**PBT and vPvB assessment**

The product contains substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
TRIETHOXYOCTYLSILANE	The substance is not PBT / vPvB
MONOPROPYLENE GLYCOL	The substance is not PBT / vPvB
DODECAN-1-OL, ETHOXYLATED	The substance is not PBT / vPvB
ALCOHOLS, C12-13, ETHOXYLATED	The substance is not PBT / vPvB
HEXAMETHYLDISILOXANE	The substance is not PBT / vPvB
OCTAMETHYLCYCLOTETRASILOXANE	PBT substance vPvB substance
CETRIMONIUM CHLORIDE	The substance is not PBT / vPvB
HEXADECYLDIMETHYLAMINE	The substance is not PBT / vPvB
5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1)	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Waste from residues/unused products**

Coagulum, filter residues must be reused, recycled or sent for incineration with energy recovery. Do not discharge water from rinsing of tanks, vessels, pumps and other equipment, as well as from rinsing of packaging and tankers to municipal sewers and open bodies of water. Separate polymer particles from rising water prior to sending it to wastewater treatment plant, e.g. by coagulation and sedimentation. If wastewaters containing SPM are directed to industrial wastewater treatment plants without separating the polymer first, the sludge should be incinerated with energy recovery. Do not dump into any sewers, on the ground, or into any body of water. This product, when being disposed

of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 2008/98/EC, provided it fulfils the criteria listed in Annex III of this directive. Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional evaluations may be required.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information

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

National regulations

Authorisations and/or restrictions on use:

This product contains one or more substances subject to restriction (UK REACH - Annex XVII).

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

Product restricted per REACH Annex XVII: 3. 70. 75. 78

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
OCTAMETHYLCYCLOTETRAISILOXANE - 556-67-2	Use restricted. See item 70. 75	-

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Chemical name	The Biocidal Products Regulations 2001 (as amended)
5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H -ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) - 55965-84-9	Product-type 2: Disinfectants and algacides not intended for direct application to humans or animals Product-type 4: Food and feed area Product-type 6: Preservatives for products during storage Product-type 11: Preservatives for liquid-cooling and processing systems Product-type 12: Slimicides Product-type 13: Working or cutting fluid preservatives

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECI	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report

No Chemical Safety Assessment has been carried out for this substance/mixture

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H225 - Highly flammable liquid and vapour
 H226 - Flammable liquid and vapour
 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
 H319 - Causes serious eye irritation
 H330 - Fatal if inhaled
 H361f - Suspected of damaging fertility
 H400 - Very toxic to aquatic life
 H410 - Very toxic to aquatic life with long lasting effects
 H411 - Toxic to aquatic life with long lasting effects
 H412 - Harmful to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorisation:
 PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
 vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Revision Note ***Indicates updated data since last publication

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGl(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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**This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

Disclaimer

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.

End of Safety Data Sheet