

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

Supersedes date 30-Jul-2024

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Revision Number 12

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

1.1. Product identifier

Product Code(s) 11312

Safety data sheet number 11312

Product Name DOWSIL HV 495 EMULSION

Synonyms DC HV 495 EMULSION, DOW CORNING HV 495 EMULSION

Pure substance/mixture Mixture

Contains BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPS. WITH TRIETHANOLAMINE

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

Recommended use Formulation or re-packing: Formulation & (re)packing of substances and mixtures.
Leather and paper industry
Textiles
Cleaning agent
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)
Serious eye damage/eye irritation	Category 1 - (H318)

Chronic aquatic toxicity

Category 2 - (H411)

2.2. Label elements

Contains BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPDS. WITH TRIETHANOLAMINE

**Signal word**

Danger

Hazard statements

H315 - Causes skin irritation

H318 - Causes serious eye damage

H411 - Toxic to aquatic life with long lasting effects

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

Precautionary statements

P261 - Avoid breathing vapours/spray

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

P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

P391 - Collect spillage

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)
BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPDS. WITH	>= 2.6 - <= 3.1 %	939-464-2	-	Aquatic Chronic 3 (H412) Skin Corr. 1C (H314) Eye Dam. 1 (H318)	Skin Corr. 1C:: C>=50% Skin Irrit. 2:: 1%<C<50% Eye Dam. 1::	-	-

TRIETHANOLAMIN E 121617-08-1					C>=3% Eye Irrit. 2 :: 1%<C<3%		
ISOTRIDEKANOL, ETHOXYLATED 69011-36-5	>= 2.1 - <= 2.4 %	-	-	Acute Tox. 4 (H302) Eye Dam. 1 (H318)	-	-	-
OCTAMETHYLCYC LOTETRASIOLOXAN E 556-67-2	>= 2.0 - <= 2.47 %	209-136-7 (014-018-00 -1)	-	Flam. Liq. 3 (H226) Aquatic Chronic 1 (H410) Repr. 2 (H361f)	-	-	10
DECAMETHYLCYC LOPENTASIOLOXAN E 541-02-6	>= 1.4 - <= 1.8 %	208-764-9	01-3283125615-4-XXX X	Not Classified	-	-	-
DODECAMETHYLC YCLOHEXASIOLOX ANE 540-97-6	>= 0.99 - <= 1.4 %	208-762-8	-	Not Classified	-	-	-
5-CHLORO-2-MET HYL-4-ISOTHIAZOL IN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H -ISOTHIAZOL-3-ON E [EC NO. 220-239-6] (3:1) 55965-84-9	>= 0.0013 - <= 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
OCTAMETHYLCYCLOTETRASIOLOXANE	556-67-2	X
DECAMETHYLCYCLOPENTASIOLOXANE	541-02-6	X
DODECAMETHYLCYCLOHEXASIOLOXANE	540-97-6	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. Get medical attention if symptoms occur. Wash contaminated clothing

before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Ensure that eyewash stations and safety showers are close to the workstation location.

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.

Eyes Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated. Causes eye burns.

Dermal Causes skin irritation.

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

Note to doctors Chemical eye burns may require extended irrigation. Chemical burns must be treated promptly by a physician. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical, CO₂, alcohol-resistant foam or water spray.

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. Exposure to combustion products may be a hazard to health. Fire burns more vigorously than would be expected.

Hazardous combustion products Carbon oxides. Silicon oxides. Nitrogen oxides (NO_x). Oxides of sulphur. Formaldehyde.

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.

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.

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.

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 Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Take up mechanically, placing in appropriate containers for disposal.

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.

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 container closed when not in use. 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.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

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

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
BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPDS. WITH TRIETHANOLAMINE 121617-08-1		5.29 mg/kg bw/day [4] [6]	4.1 mg/m ³ [4] [6]
ISOTRIDECANOL, ETHOXYLATED 69011-36-5		2080 mg/kg bw/day [4] [6]	294 mg/m ³ [4] [6]
OCTAMETHYLCYCLOTETRASILOXA NE 556-67-2			73 mg/m ³ [4] [6] 73 mg/m ³ [5] [6]
DECAMETHYLCYCLOPENTASILOXA NE 541-02-6			97.3 mg/m ³ [4] [6] 24.2 mg/m ³ [5] [6]
DODECAMETHYLCYCLOHEXASILO XANE 540-97-6			11 mg/m ³ [4] [6] 1.22 mg/m ³ [5] [6] 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
BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPDS. WITH TRIETHANOLAMINE 121617-08-1	0.58 mg/kg bw/day [4] [6]	1.2 mg/kg bw/day [4] [6]	1.01 mg/m ³ [4] [6]
ISOTRIDECANOL, ETHOXYLATED 69011-36-5	25 mg/kg bw/day [4] [6]		87 mg/m ³ [4] [6]
OCTAMETHYLCYCLOTETRASILOXA NE 556-67-2	3.7 mg/kg bw/day [4] [6]		13 mg/m ³ [4] [6] 13 mg/m ³ [5] [6]
DECAMETHYLCYCLOPENTASILOXA NE 541-02-6	5 mg/kg bw/day [4] [6]		17.3 mg/m ³ [4] [6] 4.3 mg/m ³ [5] [6]
DODECAMETHYLCYCLOHEXASILO XANE 540-97-6	1.7 mg/kg bw/day [4] [6] 1.7 mg/kg bw/day [4] [7]		2.7 mg/m ³ [4] [6] 0.3 mg/m ³ [5] [6] 1.5 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	0.09 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
BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPDS. WITH TRIETHANOLAMINE 121617-08-1	0.268 mg/l	0.268 mg/l	0.027 mg/l		
ISOTRIDECANOL, ETHOXYLATED 69011-36-5	0.074 mg/L	0.015 mg/L	0.0074 mg/L		
OCTAMETHYLCYCLOTE TRASIOXANE 556-67-2	0.0015 mg/L		0.00015 mg/L		
DECAMETHYLCYCLOPE NTASIOXANE 541-02-6	> 0.0012 mg/l		> 0.00012 mg/l		
5-CHLORO-2-METHYL-4-I SOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H -ISOTHIAZOL-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
BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPDS. WITH TRIETHANOLAMINE 121617-08-1	8.1 mg/kg dry weight (d.w.)	8.1 mg/kg dry weight (d.w.)	7 mg/l	35 mg/kg dry weight (d.w.)	
ISOTRIDECANOL, ETHOXYLATED 69011-36-5	0.604 mg/kg sediment dw	0.0604 mg/kg sediment dw	1.4 mg/L	0.1 mg/kg soil dw	
OCTAMETHYLCYCLOTE TRASIOXANE 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
DECAMETHYLCYCLOPE NTASIOXANE 541-02-6	2.4 mg/kg	0.24 mg/kg	> 10 mg/l	1.1 mg/kg	16 mg/kg food
DODECAMETHYLCYCLO HEXASIOXANE 540-97-6	13 mg/kg sediment dw	1.3 mg/kg sediment dw	1 mg/L		66.7 mg/kg food
5-CHLORO-2-METHYL-4-I SOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H -ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) 55965-84-9	0.027 mg/kg sediment dw	0.027 mg/kg sediment dw	0.23 mg/L	0.01 mg/kg soil dw	

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 ISO 16321-1.

Hand protection Wear suitable gloves. Gloves must conform to standard EN 374.

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.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid
Appearance Liquid
Colour Off-white
Odour Characteristic.
Odour threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point		Not determined.
Initial boiling point and boiling range	> 35 °C	@ 760 mmHg.
Flammability		No information available.
Flammability Limit in Air		No information available.
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point	> 101.1 °C	Pensky-Martens closed cup.
Autoignition temperature		No information available.
Decomposition temperature		No information available.
pH	7	
pH (as aqueous solution)		No information available.
Kinematic viscosity	10 cSt	@ 25 °C.
Dynamic viscosity		No information available.
Water solubility		Not determined.

Solubility(ies)		No information available.
Partition coefficient		Not determined.
Vapour pressure		No information available.
Relative density	1.00	
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.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon oxides. Silicon oxides. Nitrogen oxides (NOx). Oxides of sulphur. Formaldehyde.

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	Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated. Causes eye burns.
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 skin irritation with local redness.

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 > 2000 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPDS. WITH TRIETHANOLAMINE	= 2925 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
ISOTRIDECANOL, ETHOXYLATED	> 500 - 2000 mg/kg (Rat)	= 5960 mg/kg (Rabbit)	> 1.6 mg/L (Rat) 4 h
OCTAMETHYLCYCLOTETRASILOXANE	> 4800 mg/kg (Rat)	> 2400 mg/kg (Rat)	= 36 mg/L (Rat) 4 h
DECAMETHYLCYCLOPENTASILOXANE	> 5000 mg/kg (Rat)	> 2000 (Rabbit)	8.67 mg/l (Rat) 4h
DODECAMETHYLCYCLOHEXASILOXANE	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
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)	= 53 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 skin irritation with local redness.

BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPDS. WITH TRIETHANOLAMINE (121617-08-1)

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

ISOTRIDECANOL, ETHOXYLATED (69011-36-5)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					May cause slight irritation Redness

OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Brief contact is essentially

					non-irritating to skin.
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DECAMETHYLCYCLOPENTASILOXANE (541-02-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 404: Acute Dermal Irritation/Corrosion	Rabbit	Dermal		24 hours	non-irritant

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 404: Acute Dermal Irritation/Corrosion	Rabbit	Dermal		4 hours	non-irritant

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 Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated. Causes eye burns.

BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPS. WITH TRIETHANOLAMINE (121617-08-1)

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

ISOTRIDECANOL, ETHOXYLATED (69011-36-5)

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

OCTAMETHYLCYCLOTETRAASILOXANE (556-67-2)

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

DECAMETHYLCYCLOPENTASILOXANE (541-02-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	eye			non-irritant

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	eye			non-irritant

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

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.

BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPS. WITH TRIETHANOLAMINE (121617-08-1)

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

OCTAMETHYLCYCLOTETRAILOXANE (556-67-2)

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

DECAMETHYLCYCLOPENTASILOXANE (541-02-6)

Method	Species	Exposure route	Results
OECD Test No. 429: Skin Sensitization	Mouse	Dermal	Not a skin sensitiser

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6)

Method	Species	Exposure route	Results
OECD Test No. 406: Skin Sensitisation	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
	Mouse		Sensitising

Germ cell mutagenicity No information available.

Component Information

BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPS. WITH TRIETHANOLAMINE (121617-08-1)

Method	Species	Results
	in vitro	Negative

OCTAMETHYLCYCLOTETRAILOXANE (556-67-2)

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

DECAMETHYLCYCLOPENTASILOXANE (541-02-6)

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

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6)

Method	Species	Results
	in vitro	Negative
		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	Not mutagenic
	in vivo	Not mutagenic

Carcinogenicity

No information available.

Component Information

BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPS. WITH TRIETHANOLAMINE (121617-08-1)

Method	Species	Results
		Did not cause cancer in laboratory animals.

OCTAMETHYLCYCLOTETRAILOXANE (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.

DECAMETHYLCYCLOPENTASILOXANE (541-02-6)

Method	Species	Results
		Results from a 2 year repeated vapour inhalation exposure study to rats of decamethylcyclopentasiloxane (D5) indicate effects (uterine endometrial tumors) in female animals. This finding occurred at the highest exposure dose (160 ppm) only. Studies to date have not demonstrated if this effect occurs through a pathway that is relevant to humans.

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
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OECD 453	Rat	Did not cause cancer in laboratory animals.
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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

BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPDS. WITH TRIETHANOLAMINE (121617-08-1)

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

DECAMETHYLCYCLOPENTASILOXANE (541-02-6)

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

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6)

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

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.

BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPDS. WITH TRIETHANOLAMINE (121617-08-1)

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

DECAMETHYLCYCLOPENTASILOXANE (541-02-6)

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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DODECAMETHYLCYCLOHEXASILOXANE (540-97-6)

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

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

BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPDS. WITH TRIETHANOLAMINE (121617-08-1)

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

OCTAMETHYLCYCLOTETRAASILOXANE (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

DECAMETHYLCYCLOPENTASILOXANE (541-02-6)

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

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Based on available data, repeated

					exposures are not anticipated to cause significant adverse effects
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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 Not determined.

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Toxic to aquatic life with long lasting effects.

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

BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPS. WITH TRIETHANOLAMINE (121617-08-1)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
Acute toxicity	Brachydanio rerio	LC50	5.7 mg/L	96 hours	
Acute toxicity	Daphnia magna	LC50	10.6 mg/L	48 hours	
Acute toxicity	Desmodesmus subspicatus	ErC50	> 56.2 mg/L	72 hours	
Acute toxicity	Desmodesmus subspicatus	NOEC	3.4 mg/L	72 hours	
Bacteria toxicity	Pseudomonas putida	EC10	55 mg/L	18 hours	
Chronic toxicity	Lepomis macrochirus	NOEC	1 mg/L	28 days	
Chronic toxicity	Daphnia magna	NOEC	2.8 mg/L	21 days	

ISOTRIDEKANOL, ETHOXYLATED (69011-36-5)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
Acute toxicity	Oncorhynchus mykiss (rainbow trout)	LC50	> 1 - 10 mg/L	96 hours	
Acute toxicity		EC50	> 1 - 10 mg/L	48 hours	
Acute toxicity		EC50	> 1 - 10 mg/L	72 hours	

OCTAMETHYLCYCLOTETRASILOXANE (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	

DECAMETHYLCYCLOPENTASILOXANE (541-02-6)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 204: Fish, Prolonged Toxicity Test: 14-Day Study or Equivalent.	Oncorhynchus mykiss (rainbow trout)	LC50	>16 µg/l	96 hours	No toxicity up to the limit of solubility
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test or Equivalent.	aquatic invertebrates Daphnia magna	EC50	>2.9 mg/L	48 hours	No toxicity up to the limit of solubility
Acute toxicity	Pseudokirchneriella subcapitata	ErC50	>0.012 mg/L	96 hours	No toxicity up to the limit of solubility
Acute toxicity	Pseudokirchneriella subcapitata	NOEC	0.012 mg/L	96 hours	No toxicity up to the limit of solubility
Chronic toxicity	Oncorhynchus mykiss (rainbow trout)	LC50	> 16 mg/L	14 days	No toxicity up to the limit of solubility
Chronic toxicity	Oncorhynchus mykiss (rainbow trout)	NOEC	>= 0.017 mg/L	14 days	No toxicity up to the limit of solubility
Chronic toxicity	Oncorhynchus mykiss (rainbow trout)	NOEC	>= 0.014 mg/L	14 days	No toxicity up to the limit of solubility
Chronic toxicity	Daphnia magna	NOEC	0.015 mg/L	21 days	
	Eisenia fetida	NOEC	>= 76 mg/kg		

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
Acute toxicity	Pseudokirchneriella subcapitata	ErC50	> 0.002 mg/L	72 days	No toxicity up to the limit of solubility
Acute toxicity	Pseudokirchneriella subcapitata	NOEC	>= 0.002 mg/L	72 hours	No toxicity up to the limit of solubility
Chronic toxicity	Daphnia magna	NOEC	0.0046 mg/L	21 days	No toxicity up to the limit of solubility

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:	Skeletonema	ErC50	0.0052 mg/L	48 hours	

Freshwater Algae and Cyanobacteria, Growth Inhibition Test	costatum				
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.

BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPS. WITH TRIETHANOLAMINE (121617-08-1)

Method	Exposure time	Value	Results
OECD Test No. 301E: Ready Biodegradability: Modified OECD Screening Test (TG 301 E) or Equivalent.	28 days	Biodegradation 100%	Readily biodegradable

ISOTRIDECANOL, ETHOXYLATED (69011-36-5)

Method	Exposure time	Value	Results
OECD Test No. 301B: Ready Biodegradability: CO2 Evolution Test (TG 301 B)	28 days	Biodegradation > 60 %	Readily biodegradable

OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)

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

DECAMETHYLCYCLOPENTASILOXANE (541-02-6)

Method	Exposure time	Value	Results
OECD 310	28 days	Biodegradation 0.14%	Expected to biodegrade very slowly

DODECAMETHYLCYCLOHEXASILOXANE (540-97-6)

Method	Exposure time	Value	Results
OECD Test No. 301B: Ready Biodegradability: CO2 Evolution Test (TG 301 B)	28 days	Biodegradation 4.5 %	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.

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 Biodegradability: Zahn-Wellens/ EVPA Test	10 days	Biodegradation < 50 %	Rapidly biodegradable

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPDS. WITH TRIETHANOLAMINE	1.5
OCTAMETHYLCYCLOTETRASIOXANE	6.49
DECAMETHYLCYCLOPENTASILOXANE	5.2
DODECAMETHYLCYCLOHEXASILOXANE	8.87
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 Not determined.

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
BENZENESULFONIC ACID, 4-C10-13-SEC-ALKYL DERIVS., COMPDS. WITH TRIETHANOLAMINE	The substance is not PBT / vPvB
ISOTRIDECANOL, ETHOXYLATED	The substance is not PBT / vPvB
OCTAMETHYLCYCLOTETRASIOXANE	PBT substance vPvB substance
DECAMETHYLCYCLOPENTASILOXANE	PBT substance vPvB substance
DODECAMETHYLCYCLOHEXASILOXANE	vPvB substance
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**

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

UN3082

14.2 UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S.
(OCTAMETHYLCYCLOTETRASIOXANE)

14.3 Transport hazard class(es)

9

14.4 Packing group

III

14.5 Environmental hazards

Yes

14.6 Special precautions for user

Special Provisions

A97, A158, A197

ERG Code 9L

IMDG

14.1 UN number or ID number UN3082
 14.2 UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (OCTAMETHYLCYCLOTETRASILOXANE)
 14.3 Transport hazard class(es) 9
 14.4 Packing group III
 14.5 Environmental hazards Yes
 14.6 Special precautions for user
 Special Provisions 274, 335, 969
 EmS-No F-A, S-F
 14.7 Maritime transport in bulk according to IMO instruments No information available

RID

14.1 UN number or ID number UN3082
 14.2 UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (OCTAMETHYLCYCLOTETRASILOXANE)
 14.3 Transport hazard class(es) 9
 14.4 Packing group III
 14.5 Environmental hazards Yes
 14.6 Special precautions for user
 Special Provisions 274, 335, 375, 601
 Classification code M6

ADR

14.1 UN number or ID number UN3082
 14.2 UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (OCTAMETHYLCYCLOTETRASILOXANE)
 14.3 Transport hazard class(es) 9
 14.4 Packing group III
 14.5 Environmental hazards Yes
 14.6 Special precautions for user
 Special Provisions 274, 335, 601, 375
 Classification code M6
 Tunnel restriction code (-)

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

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
OCTAMETHYLCYCLOTETRASILOXANE - 556-67-2	Use restricted. See item 70. 75	-
DECAMETHYLCYCLOPENTASILOXANE - 541-02-6	Use restricted. See item 70.	-
DODECAMETHYLCYCLOHEXASILOXANE - 540-97-6	Use restricted. See item 70.	-
5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE [EC NO. 247-500-7] & 2-METHYL-2H	75	-

-ISOTHIAZOL-3-ONE [EC NO. 220-239-6] (3:1) - 55965-84-9		
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Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Dangerous substance category per COMAH Regulations 2015 (as amended)

E2 - Hazardous to the Aquatic Environment in Category Chronic 2

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**

EUH071 - Corrosive to the respiratory tract
 H226 - Flammable liquid and vapour
 H301 - Toxic if swallowed
 H302 - Harmful if swallowed
 H310 - Fatal in contact with skin
 H314 - Causes severe skin burns and eye damage
 H317 - May cause an allergic skin reaction
 H318 - Causes serious eye damage
 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
 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 **SDS sections updated 3 4 5 8 11 12 13 15 16**

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

Prepared By Lisa Bland
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Revision date 02-Mar-2026

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