

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

Supersedes date 23-Feb-2024

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Revision Number 5.01

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

1.1. Product identifier

Product Code(s) 12138

Safety data sheet number 12138

Product Name DOWSIL 1200 OS PRIMER CLEAR

Synonyms DOW CORNING 1200 OS PRIMER CLEAR

Pure substance/mixture Mixture

Contains TITANIUM TETRABUTANOLATE

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

Recommended use Industrial use Professional use Coatings

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

Flammable liquids	Category 3 - (H226)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements

Contains TITANIUM TETRABUTANOLATE

**Signal word**

Danger

Hazard statements

H315 - Causes skin irritation

H318 - Causes serious eye damage

H412 - Harmful to aquatic life with long lasting effects

H226 - Flammable liquid and vapour

Precautionary statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P264 - Wash face, hands and any exposed skin thoroughly after handling

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

P370 + P378 - In case of fire: Use dry chemical, CO₂, water spray or alcohol-resistant foam to extinguish

P403 + P235 - Store in a well-ventilated place. Keep cool

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)
OCTAMETHYLTRISILOXANE 107-51-7	>= 82.0 - <= 87.0 %	203-497-4	01-4273948457-6	Flam. Liq. 3 (H226)	-	-	-
TETRAKIS (2-BUTOXYETHYL) ORTHOSILICATE 18765-38-3	>= 4.8 - <= 5.2 %	242-560-0	-	STOT RE 2 (H373) Skin Irrit. 2 (H315)	-	-	-
TITANIUM	>= 4.6 -	227-006-8	-	Flam. Liq. 3 (H226)	-	-	-

TETRABUTANOLATE 5593-70-4	<= 5.1 %			STOT SE 3 (H335) (H336) Skin Irrit. 2 (H315) Eye Dam. 1 (H318)			
OCTAMETHYLCYCLOTRASILOXANE 556-67-2	<= 0.046 %	209-136-7 (014-018-00-1)	-	Flam. Liq. 3 (H226) Aquatic Chronic 1 (H410) Repr. 2 (H361f)	-	-	10

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

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59)

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. Ensure that eyewash stations and safety showers are close to the workstation location.
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. Ensure that eyewash stations and safety showers are close to the workstation location.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting without medical advice. Get medical attention if symptoms occur.

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

Eyes	Causes serious eye damage.
Dermal	Causes skin irritation.

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

Note to doctors	Treat symptomatically. May cause asthma-like (reactive airways) symptoms. Bronchodilators expectorants, antitussives and corticosteroids may be of help. Causes eye burns. Chemical burns must be treated promptly by a physician.
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SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media	Alcohol resistant foam. Dry chemical. 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. 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. Closed containers can burst violently when heated, due to excess pressure build-up. Fire burns more vigorously than would be expected. Vapours may form explosive mixtures with air.

Hazardous combustion products Carbon oxides. Silicon oxides. Formaldehyde. Metal oxides. PROPYL ALCOHOL. Ethylene Glycol Monobutyl Ether. BUTANOL.

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. 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.

Other information Ventilate the area. 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 Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapour suppressing foam may be used to reduce vapours. Dyke far ahead of spill to collect run-off water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Use non-sparking tools. Suppress (knock down) gases/vapours/mists with a water spray jet. 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. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use non-sparking tools. 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. Product is a static accumulator.

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. Keep away from open flames, hot surfaces and sources of ignition. Store away from the following materials. Strong oxidising agents. Organic peroxide. Flammable solid. Pyrophoric liquids. Pyrophoric solids. Self-heating substances and mixtures. Substances and mixtures, which in contact with water, emit flammable gases. Explosives. Gases.

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

Biological occupational exposure limits

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
OCTAMETHYLTRISILOXANE 107-51-7		1103 mg/kg bw/day [4] [6]	78 mg/m ³ [4] [6]
TETRAKIS (2-BUTOXYETHYL) ORTHOSILICATE 18765-38-3		25 mg/kg/day [4] [6]	44 mg/m ³ [4] [6]
TITANIUM TETRABUTANOLATE 5593-70-4			127 mg/m ³ [4] [6]
OCTAMETHYLCYCLOTETRASILOXANE 556-67-2			73 mg/m ³ [4] [6] 73 mg/m ³ [5] [6]

[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
OCTAMETHYLTRISILOXANE 107-51-7	0.04 mg/kg bw/day [4] [6]	556.5 mg/kg bw/day [4] [6]	19 mg/m ³ [4] [6]
TETRAKIS (2-BUTOXYETHYL) ORTHOSILICATE 18765-38-3	12.5 mg/kg/day [4] [6]	12.5 mg/kg/day [4] [6]	10.9 mg/m ³ [4] [6]
TITANIUM TETRABUTANOLATE 5593-70-4	3.75 mg/kg bw/day [4] [6]	37.5 mg/kg bw/day [4] [6]	152 mg/m ³ [4] [6]
OCTAMETHYLCYCLOTETRASILOXANE 556-67-2	3.7 mg/kg bw/day [4] [6]		13 mg/m ³ [4] [6] 13 mg/m ³ [5] [6]

[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
TETRAKIS (2-BUTOXYETHYL) ORTHOSILICATE 18765-38-3	10 mg/l		1 mg/l		
TITANIUM TETRABUTANOLATE 5593-70-4	0.08 mg/L	2.25 mg/L	0.008 mg/L		
OCTAMETHYLCYCLOTE TRASILOXANE 556-67-2	0.0015 mg/L		0.00015 mg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
OCTAMETHYLTRISILOXANE 107-51-7	8.9 mg/kg sediment dw	0.89 mg/kg sediment dw	1 mg/L	0.5 mg/kg soil dw	1.7 mg/kg food
TETRAKIS (2-BUTOXYETHYL) ORTHOSILICATE 18765-38-3	63.6 mg/kg	6.4 mg/kg	463 mg/l	0.570 mg/kg	
TITANIUM TETRABUTANOLATE 5593-70-4	0.069 mg/kg	0.007 mg/kg	65 mg/L	0.017 mg/kg dry weight dw	
OCTAMETHYLCYCLOTE TRASILOXANE 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

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. 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	> 120 minutes
	Wear protective Neoprene™ gloves	> 0.35 mm	> 120 minutes
	Wear protective nitrile rubber gloves	> 0.35 mm	> 120 minutes
	Ethyl vinyl alcohol laminate ("EVAL")	> 0.35 mm	> 120 minutes
	Polyvinyl chloride (PVC)	> 0.35 mm	> 120 minutes
	Rubber (natural, latex)	> 0.35 mm	> 120 minutes

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

Respiratory protection Use appropriate respiratory protection.
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 Colourless
Odour Slight.
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	> 100 °C	@ 760 mmHg.
Flammability		No information available.
Flammability Limit in Air		No information available.
Upper flammability or explosive limits	13.75 % vol Octamethyltrisiloxane	
Lower flammability or explosive limits	0.90 % vol Octamethyltrisiloxane	
Flash point	27 °C	Closed cup.
Autoignition temperature	350 °C	Octamethyltrisiloxane.
Decomposition temperature		No information available.
pH		Not applicable. Insoluble in water.
pH (as aqueous solution)		No information available.
Kinematic viscosity	1.3 mm ² /s	@ 25 °C.
Dynamic viscosity		No information available.
Water solubility	Insoluble in water	
Solubility(ies)		No information available.
Partition coefficient		No information available.
Vapour pressure		No information available.
Relative density	0.82	

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 Yes.

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. Flammable liquid and vapour.

10.4. Conditions to avoid

Conditions to avoid Take precautionary measures against static discharges. Heat, flames and sparks.

10.5. Incompatible materials

Incompatible materials Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon oxides. Silicon oxides. Formaldehyde. Metal oxides. PROPYL ALCOHOL. Ethylene Glycol Monobutyl Ether. BUTANOL.

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.
Skin contact	Causes skin irritation.
Ingestion	Gastrointestinal discomfort.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity**Numerical measures of toxicity**

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

> 2000 mg/kg (rat) > 2000 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
OCTAMETHYLTRISILOXANE	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 22.6 mg/L (Rat) 4 h
TETRAKIS (2-BUTOXYETHYL) ORTHOSILICATE	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
TITANIUM TETRABUTANOLATE	= 4220 mg/kg (Rat)	= 5300 mg/kg (Rabbit)	= 11 mg/l (Rat) 4h
OCTAMETHYLCYCLOTETRASILOXANE	> 4800 mg/kg (Rat)	> 2400 mg/kg (Rabbit)	= 36 mg/L (Rat) 4 h

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

Skin corrosion/irritation Causes skin irritation.

OCTAMETHYLTRISILOXANE (107-51-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Non-irritating during normal use

TETRAKIS (2-BUTOXYETHYL) ORTHOSILICATE (18765-38-3)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes skin irritation

TITANIUM TETRABUTANOLATE (5593-70-4)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Causes skin irritation Redness

OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Non-irritating during normal use

Serious eye damage/eye irritation Causes serious eye damage. May cause permanent damage if eye is not immediately irrigated.

OCTAMETHYLTRISILOXANE (107-51-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					May cause temporary eye irritation

TETRAKIS (2-BUTOXYETHYL) ORTHOSILICATE (18765-38-3)

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

TITANIUM TETRABUTANOLATE (5593-70-4)

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

OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)

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

Respiratory or skin sensitisation Not a skin sensitiser.

OCTAMETHYLTRISILOXANE (107-51-7)

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

TETRAKIS (2-BUTOXYETHYL) ORTHOSILICATE (18765-38-3)

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

TITANIUM TETRABUTANOLATE (5593-70-4)

Method	Species	Exposure route	Results
	Mouse	Dermal	Not a skin sensitiser

OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)

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

Germ cell mutagenicity No information available.

Component Information

OCTAMETHYLTRISILOXANE (107-51-7)

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

OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)

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

Carcinogenicity No information available.

Component Information

OCTAMETHYLTRISILOXANE (107-51-7)

Method	Species	Results
		Did not cause cancer in laboratory animals.

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.
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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

OCTAMETHYLTRISILOXANE (107-51-7)

OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)

Method	Species	Results
		Suspected of damaging fertility

STOT - single exposure No information available.

OCTAMETHYLTRISILOXANE (107-51-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					In animals, effects have been reported on the following organs: Liver This material contains octamethyltrisiloxane (L3). Repeated inhalation exposure in rats to L3 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.

TETRAKIS (2-BUTOXYETHYL) ORTHOSILICATE (18765-38-3)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					In animals, effects

					have been reported on the following organs: Blood
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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

STOT - repeated exposure

No information available.

OCTAMETHYLTRISILOXANE (107-51-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Not classified Based on available data, specific target organ toxicity is not expected after single oral, single inhalation, or single dermal exposure.

TETRAKIS (2-BUTOXYETHYL) ORTHOSILICATE (18765-38-3)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Not classified Based on available data, specific target organ toxicity is not expected after single oral, single inhalation, or single dermal exposure.

TITANIUM TETRABUTANOLATE (5593-70-4)

Method	Species	Exposure route	Effective dose	Exposure time	Results
		Inhalation			May cause respiratory irritation
		Inhalation			May cause drowsiness or dizziness

OCTAMETHYLCYCLOTETRAILOXANE (556-67-2)

Method	Species	Exposure route	Effective dose	Exposure time	Results
					Not classified Based on available data, specific target organ toxicity is not expected after single oral, single inhalation, or single dermal exposure.

Aspiration hazard

Not determined.

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.

OCTAMETHYLTRISILOXANE (107-51-7)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	Oncorhynchus mykiss (rainbow trout)	LC50	> 0.0191 mg/L	96 hours	
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test	Daphnia magna	EC50	> 0.02 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	EC50	> 0.0094 mg/L	72 hours	
OECD Test No. 209: Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)	activated sludge	EC50	> 100 mg/L	3 hours	
	Oncorhynchus mykiss (rainbow trout)	NOEC	> 0.027 mg/L	90 days	
	Daphnia magna	NOEC	> 0.015 mg/L	21 days	

TETRAKIS (2-BUTOXYETHYL) ORTHOSILICATE (18765-38-3)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	Brachydanio rerio	LC50	> 201 mg/L	96 hours	
	Daphnia magna	EC50	> 90 mg/L	48 hours	
	Scenedesmus subspicatus	ErC50	> 161 mg/L	72 hours	

OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
	Oncorhynchus mykiss (rainbow trout)	LC50	> 0.022 mg/L	96 hours	
	Cyprinodon variegatus	LC50	> 0.0063 mg/L	14 days	
	Mysidopsis bahia	EC50	> 0.0091 mg/L	96 hours	
	Daphnia magna	EC50	> 0.015 mg/L	48 hours	
	Pseudokirchneriella subcapitata	ErC50	> 0.022 mg/L	96 hours	
	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	

					Based on testing of comparable products: The estimated maximum aqueous concentration of Octamethyl Cyclotetrasiloxane (D4) from migration to water from the product as supplied is below the D4 established no-effect threshold (< 0.0079 mg/L) for aquatic organisms.
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12.2. Persistence and degradability

Persistence and degradability No information available.

OCTAMETHYLTRISILOXANE (107-51-7)

Method	Exposure time	Value	Results
OECD 310	28 days	Biodegradation 0%	Not applicable

TETRAKIS (2-BUTOXYETHYL) ORTHOSILICATE (18765-38-3)

Method	Exposure time	Value	Results
OECD Test No. 301B: Ready Biodegradability: CO ₂ Evolution Test (TG 301 B)		Biodegradation 83 %	Readily biodegradable

OCTAMETHYLCYCLOTETRASILOXANE (556-67-2)

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

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

Chemical name	Partition coefficient
OCTAMETHYLTRISILOXANE	5.35
TITANIUM TETRABUTANOLATE	0.88
OCTAMETHYLCYCLOTETRASILOXANE	6.49

12.4. Mobility in soil

Mobility in soil Insoluble.

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
OCTAMETHYLTRISILOXANE	The substance is not PBT / vPvB
TITANIUM TETRABUTANOLATE	The substance is not PBT / vPvB
OCTAMETHYLCYCLOTETRASILOXANE	PBT substance vPvB substance

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products	Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (OCTAMETHYLTRISILOXANE, TITANIUM TETRABUTANOLATE)
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	A3
ERG Code	3L

IMDG

14.1 UN number or ID number	UN1993
UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (OCTAMETHYLTRISILOXANE, TITANIUM TETRABUTANOLATE)
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	223, 274, 955
EmS-No	F-E, S-E
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (OCTAMETHYLTRISILOXANE, TITANIUM TETRABUTANOLATE)
14.3 Transport hazard class(es)	3
14.4 Packing group	III
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	274, 601
Classification code	F1

ADR

14.1 UN number or ID number	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (OCTAMETHYLTRISILOXANE, TITANIUM TETRABUTANOLATE)
14.3 Transport hazard class(es)	3

14.4 Packing group	III
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	274, 601
Classification code	F1
Tunnel restriction code	(D/E)

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).

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

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Dangerous substance category per COMAH Regulations 2015 (as amended)

P5c - FLAMMABLE LIQUIDS

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)

Not applicable

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
AIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

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

H226 - Flammable liquid and vapour
 H302 - Harmful if swallowed
 H315 - Causes skin irritation
 H318 - Causes serious eye damage
 H319 - Causes serious eye irritation
 H332 - Harmful if inhaled
 H335 - May cause respiratory irritation
 H336 - May cause drowsiness or dizziness
 H361f - Suspected of damaging fertility
 H373 - May cause damage to organs through prolonged or repeated exposure
 H410 - Very toxic 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 7**

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