

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878

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

1.1 Product identifier

Product name Repel-Silane ES, 500 ml

Catalogue Number 17133201



Product description Not available.

Product type Liquid.

Other means of identification Not available.

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

Identified uses

Analytical chemistry.
Laboratory chemicals
Scientific research and development
☒ Consumer use

-

1.3 Details of the supplier of the safety data sheet

Supplier

Cytiva
Amersham Place
Little Chalfont
Buckinghamshire
HP7 9NA United Kingdom
+44 1494 508000

Hours of operation

08.30 - 17.00

Person who prepared the SDS : sds_author@cytiva.com

Switzerland

Pall (Schweiz) GmbH
Schaeferweg 16
4057 Basel
Switzerland
t: 0848 8028 10

1.4 Emergency telephone number

Call INFOTRAC 24 Hour number:
001-352-323-3500 (Call Collect).

National advisory body/Poison Centre

Switzerland

Vergiftungsnotruf
Tel: 145

Aus dem Ausland oder bei technischen Problemen: +41 44 251 51 51

<https://www.toxinfo.ch/notruf-145>

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

☒ Flam. Liq. 3, H226
Repr. 2, H361f
Aquatic Chronic 1, H410
PBT, EUH440
vPvB, EUH441

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.



Ingredients of unknown toxicity

100 percent of the mixture consists of component(s) of unknown acute oral toxicity
100 percent of the mixture consists of component(s) of unknown acute dermal toxicity

Ingredients of unknown ecotoxicity

Contains 2% of components with unknown hazards to the aquatic environment

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms



Signal word

Danger

Hazard statements

H226 Flammable liquid and vapour.

H360D Suspected of damaging fertility.

H410 Very toxic to aquatic life with long lasting effects.

H500 Strongly accumulates in the environment and living organisms including in humans.

Precautionary statements

General

Not applicable.

Prevention

Obtain special instructions before use. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment.

Response

Collect spillage. IF exposed or concerned: Get medical advice or attention.

Storage

Not applicable.

Disposal

Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings

Not applicable.

Tactile warning of danger

Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

This mixture contains substances that are assessed to be a PBT or a vPvB, refer to Section 3.2.

Other hazards which do not result in classification

None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures Mixture

Product/ingredient name	Identifiers	%	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
Octamethylcyclotetrasiloxane	REACH #: 01-2119529238-36 EC: 209-136-7 CAS: 556-67-2 Index: 014-018-00-1	98	Flam. Liq. 3, H226 Repr. 2, H361f Aquatic Chronic 1, H410 PBT, EUH440 vPvB, EUH441	[1] [2] [3]
dimethyldichlorosilane	REACH #: 01-2119437250-51 EC: 200-901-0 CAS: 75-78-5 Index: 014-003-00-X	2	Flam. Liq. 2, H225 Acute Tox. 3, H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335	[1]
See Section 16 for the full text of the H statements declared above.				

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a physical, health or environmental hazard

[2] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[3] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	No specific data.
Inhalation	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Skin contact	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Ingestion	Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments	No specific treatment.


SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture  Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is very toxic to aquatic life with long lasting effects. This material strongly accumulates in the environment and living organisms including in humans. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.



Hazardous combustion products	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
5.3 Advice for firefighters	
Special precautions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

Small spill	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large spill	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures	Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 20 to 30°C (68 to 86°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds (in tonnes)

Danger criteria



Category	Notification and MAPP threshold	Safety report threshold
 5c	5000	50000
E1	100	200

7.3 Specific end use(s)

Recommendations	Analytical chemistry. Laboratory chemicals. Scientific research and development.
Industrial sector specific solutions	Not available.

SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario (s).

8.1 Control parameters

Occupational exposure limits


No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures	Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
-----------------------------------	---

DNELs/DMELs

Product/ingredient name	Result
 octamethylcyclotetrasiloxane	DNEL - General population - Long term - Oral 3.7 mg/kg bw/day <u>Effects:</u> Systemic
	DNEL - General population - Long term - Inhalation 13 mg/m³ <u>Effects:</u> Local
	DNEL - General population - Long term - Inhalation 13 mg/m³ <u>Effects:</u> Systemic
	DNEL - Workers - Long term - Inhalation 73 mg/m³ <u>Effects:</u> Local
	DNEL - Workers - Long term - Inhalation 73 mg/m³ <u>Effects:</u> Systemic
dimethyldichlorosilane	DNEL - General population - Short term - Oral 2.5 mg/kg bw/day <u>Effects:</u> Systemic
	DNEL - General population - Long term - Oral 2.5 mg/kg bw/day <u>Effects:</u> Systemic
	DNEL - General population - Short term - Inhalation 4.8 mg/m³ <u>Effects:</u> Local
	DNEL - General population - Long term - Inhalation 4.8 mg/m³ <u>Effects:</u> Local
	DNEL - Workers - Short term - Dermal 7 mg/kg bw/day <u>Effects:</u> Systemic
	DNEL - Workers - Long term - Dermal 7 mg/kg bw/day <u>Effects:</u> Systemic
	DNEL - General population - Short term - Inhalation 8.7 mg/m³

Effects: Systemic

DNEL - General population - Long term - Inhalation

8.7 mg/m³

Effects: Systemic

DNEL - Workers - Short term - Inhalation

14.2 mg/m³

Effects: Local

DNEL - Workers - Long term - Inhalation

14.2 mg/m³

Effects: Local

DNEL - Workers - Short term - Inhalation

49.4 mg/m³

Effects: Systemic

DNEL - Workers - Long term - Inhalation

49.4 mg/m³

Effects: Systemic

PNECs

Not available.

8.2 Exposure controls

Appropriate engineering controls

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state	Liquid.
Colour	Colourless.
Odour	Not available.
Odour threshold	Not available.
Melting point/freezing point	Not available.



Boiling point or initial boiling point and boiling range	Not available.		
Flammability	Not available.		
Lower and upper explosion limit	Not available.		
Flash point	Closed cup: 56°C		
Auto-ignition temperature	Not available.		
Ingredient name	°C	Method	
Octamethylcyclotetrasiloxane	384 to 387	ASTM E 659	
dimethyldichlorosilane	425	DIN 51794	
Decomposition temperature	Not available.		
pH	Not applicable.		
Viscosity	Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C): Not available.		
Solubility			
Media	Result		
cold water	Easily soluble		
hot water	Easily soluble		
Solubility in water	Not available.		
Partition coefficient: n-octanol/ water	Not applicable.		
Vapour pressure	Not available.		
	<u>Vapour Pressure at 20°C</u>		
Ingredient name	mm Hg	kPa	Method
Dimethyldichlorosilane	109.70432	14.6	EU A.4
octamethylcyclotetrasiloxane	0.99008	0.13	
Relative density	Not available.		
Relative vapour density	Not available.		
<u>Particle characteristics</u>			
Median particle size	Not applicable.		
9.2 Other information			
9.2.1 Information with regard to physical hazard classes			
Burning time	Not applicable.		
Burning rate	Not applicable.		
Explosive properties	Not considered to be a product presenting a risk of explosion.		
Oxidising properties	Not available.		
9.2.2 Other safety characteristics			
Evaporation rate	Not available.		
Not applicable.			

SECTION 10: Stability and reactivity

10.1 Reactivity	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	The product is stable.
10.3 Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
10.5 Incompatible materials	Reactive or incompatible with the following materials: oxidising materials
10.6 Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product/ingredient name	Result
Octamethylcyclotetrasiloxane	Rat - Inhalation - LC50 Vapour 36 g/m³ [4 hours] <u>Toxic effects:</u> Behavioral - Excitement Lung, Thorax, or Respiration - Dyspnea Other - Hair
dimethyldichlorosilane	Rat - Inhalation - LC50 Gas. 930 ppm [4 hours]

Conclusion/Summary [Product] Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Repel-Silane ES, 500 ml	N/A	N/A	46500.0	N/A	N/A
octamethylcyclotetrasiloxane	N/A	N/A	N/A	36	N/A
dimethyldichlorosilane	N/A	N/A	930	N/A	N/A

Skin corrosion/irritation

Product/ingredient name	Result
Dimethyldichlorosilane	Rabbit - Skin - Moderate irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 20 mg

Conclusion/Summary [Product] Not available.

Serious eye damage/eye irritation

Product/ingredient name	Result
Dimethyldichlorosilane	Rabbit - Eyes - Severe irritant <u>Duration of treatment/exposure:</u> 24 hours <u>Amount/concentration applied:</u> 5 mg

Conclusion/Summary [Product] Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] Not available.

Respiratory

Conclusion/Summary [Product] Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] Not available.



Specific target organ toxicity (single exposure)**Product/ingredient name**

dimethyldichlorosilane

Result

STOT SE 3, H335 (Respiratory tract irritation)

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects**Inhalation** No known significant effects or critical hazards.**Ingestion** No known significant effects or critical hazards.**Skin contact** No known significant effects or critical hazards.**Eye contact** No known significant effects or critical hazards.**Symptoms related to the physical, chemical and toxicological characteristics****Inhalation** Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations**Ingestion** Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations**Skin contact** Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations**Eye contact** No specific data.**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Short term exposure****Potential immediate effects** Not available.**Potential delayed effects** Not available.**Long term exposure****Potential immediate effects** Not available.**Potential delayed effects** Not available.**Potential chronic health effects**

Not available.

Conclusion/Summary [Product] Not available.**General** No known significant effects or critical hazards.**Carcinogenicity** No known significant effects or critical hazards.**Mutagenicity** No known significant effects or critical hazards.**Reproductive toxicity** Suspected of damaging fertility.**11.2 Information on other hazards****11.2.1 Endocrine disrupting properties**

Not available.

Conclusion/Summary [Product] The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.**11.2.2 Other information**

Not available.



SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name

Octamethylcyclotetrasiloxane

Result

Chronic - NOEC - Fresh water

Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss* - Egg

Age: 2 hours

4.4 µg/l [90 days]

Effect: Multiple

Chronic - NOEC - Fresh water

Daphnia - Water flea - *Daphnia magna*

Age: <24 hours

7.9 µg/l [21 days]

Effect: Mortality

Chronic - NOEC

STDMETH

Algae - Green algae - *Selenastrum capricornutum*

1 to 29 µg/l [96 hours]

Effect: Population

Conclusion/Summary [Product] Not available.

12.2 Persistence and degradability

Not available.

Conclusion/Summary [Product] Not available.

Ingredient name

Dimethyldichlorosilane

Conclusion/Summary

Decomposes in water.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Octamethylcyclotetrasiloxane	6.488	13400 [EPA OTS 797.1520]	High
dimethyldichlorosilane	-0.41	-	Low

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name

logK_{oc}

K_{oc}

Octamethylcyclotetrasiloxane

3.5

3064.9

dimethyldichlorosilane

2.1

117.926

Results of PMT and vPvM assessment

Product/ingredient name

PMT

P

M

T

vPvM

vP

vM

Octamethylcyclotetrasiloxane

No

Yes

No

Yes

No

Yes

No

dimethyldichlorosilane

No

N/A

Yes

No

No

N/A

No

Mobility

Not available.

Conclusion/Summary

The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

Product/ingredient name

PBT

P

B

T

vPvB

vP

vB

Octamethylcyclotetrasiloxane

Yes

Yes

Yes

Yes

Yes

Yes

Yes

dimethyldichlorosilane

No

N/A

N/A

No

N/A

N/A

N/A

Regulation (EC) No. 1272/2008 [CLP]

Product/ingredient name

PBT

P

B

T

vPvB

vP

vB

Octamethylcyclotetrasiloxane

Yes

Yes

Yes

Yes

Yes

Yes

Yes

dimethyldichlorosilane

No

N/A

N/A

No

N/A

N/A

N/A

Conclusion/Summary

Strongly accumulates in the environment and living organisms including in humans.

Regulation (EC) No. 1272/2008 [CLP]

12.6 Endocrine disrupting properties

Not applicable.

Conclusion/Summary [Product]

The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 Other adverse effects

No known significant effects or critical hazards.



SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods







Product

Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
Hazardous waste	The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions	This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN1993	UN1993	UN1993	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUIDS, N.O.S. (octamethylcyclotetrasiloxane, dimethyldichlorosilane)	FLAMMABLE LIQUIDS, N.O.S. (octamethylcyclotetrasiloxane, dimethyldichlorosilane)	FLAMMABLE LIQUIDS, N.O.S. (octamethylcyclotetrasiloxane, dimethyldichlorosilane)	FLAMMABLE LIQUIDS, N.O.S. (octamethylcyclotetrasiloxane, dimethyldichlorosilane)
14.3 Transport hazard class(es)	3  	3  	3 	3 
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	No.	No.
Additional information	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. Hazard identification number 30 Tunnel code (D/E)	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.	Emergency schedules F-E, S-E	The environmentally hazardous substance mark may appear if required by other transportation regulations.

14.6 Special precautions for user	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
14.7 Transport in bulk according to IMO instruments	Not available.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
--------------------	-----------------	--------	------------------	------------------

PBT	octamethylcyclotetrasiloxane	Recommended	10th recommendation	4/14/2021
vPvB	octamethylcyclotetrasiloxane	Recommended	10th recommendation	4/14/2021

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
Repel-Silane ES, 500 ml	≥90	3
octamethylcyclotetrasiloxane	≥90	70
Labelling	Not applicable.	

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air	Not listed
Industrial emissions (integrated pollution prevention and control) - Water	Not listed
Explosive precursors	Not applicable.

Ozone depleting substances (EU 2024/590)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category

P5c
E1

National regulations

VOC content	Exempt.
-------------	---------

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list


United States	All components are active or exempted.
Canada inventory	All components are listed or exempted.
China	All components are listed or exempted.
Japan	Japan inventory (CSCL): All components are listed or exempted. Japan inventory (ISHL): All components are listed or exempted.
15.2 Chemical safety assessment	This product contains substances for which Chemical Safety Assessments are still required.


SECTION 16: Other information


 Indicates information that has changed from previously issued version.

Abbreviations and acronyms	ATE = Acute Toxicity Estimate
	CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
	DMEL = Derived Minimal Effect Level
	DNEL = Derived No Effect Level
	EUH statement = CLP-specific Hazard statement
	N/A = Not available
	PBT = Persistent, Bioaccumulative and Toxic
	PNEC = Predicted No Effect Concentration
	RRN = REACH Registration Number
	vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
 Flam. Liq. 3, H226 Repr. 2, H361f Aquatic Chronic 1, H410 PBT, EUH440 vPvB, EUH441	On basis of test data Calculation method Calculation method Calculation method Calculation method

Full text of abbreviated H statements	 H225	Highly flammable liquid and vapour.
	H226	Flammable liquid and vapour.
	H315	Causes skin irritation.
	H319	Causes serious eye irritation.
	H331	Toxic if inhaled.
	H335	May cause respiratory irritation.
	H361f	Suspected of damaging fertility.
	H410	Very toxic to aquatic life with long lasting effects.
	EUH440	Accumulates in the environment and living organisms including in humans.
	EUH441	Strongly accumulates in the environment and living organisms including in humans.

Full text of classifications [CLP/GHS]	 Acute Tox. 3	ACUTE TOXICITY - Category 3
	Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
	Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
	Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
	Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
	PBT	PERSISTENT, BIOACCUMULATIVE AND TOXIC
	Repr. 2	REPRODUCTIVE TOXICITY - Category 2
	Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
	STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
	vPvB	VERY PERSISTENT AND VERY BIOACCUMULATIVE

Date of printing	10 February 2026
Date of issue/ Date of revision	10 February 2026
Date of previous issue	02 November 2023
Version	13

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

