

Safety Data Sheet according to (EC) No 1907/2006 as amended

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SDS No.: 444476 V004.1

Revision: 20.07.2022

printing date: 26.09.2022

Replaces version from: 27.01.2022

LOCTITE SI 5990 CO TB100ML EGFD

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

1.1. Product identifier

LOCTITE SI 5990 CO TB100ML EGFD

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

Intended use:

Silicone adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone:

+44 (1442) 278000

ua-productsafety.uk@henkel.com

For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkel-adhesives.com.

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

2.2. Label elements

Label elements (CLP):

The substance or mixture is not hazardous according to Regulation (EC) No 1272/2008 (CLP).

Supplemental information Safety data sheet available on request.

2.3. Other hazards

None if used properly.

This mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

Self-classification according to Article 12(b) of (EU) 1272/2008.

Following substances are present in a concentration >= 0.1% and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

octamethylcyclotetrasiloxane 556-67-2	PBT/vPvB
Decamethylcyclopentasiloxane 541-02-6	PBT/vPvB
Dodecamethylcyclohexasiloxane 540-97-6	PBT/vPvB

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M- factors and ATEs	Add. Information
2-Propanone, O,O',O''- (ethylsilylidyne)trioxime 58190-57-1 01-2119982962-22	5- < 10 %	STOT RE 2, H373		
Dimethyltindineodecanoate 68928-76-7 273-028-6 01-2120770324-57	0,1-< 1 %	Acute Tox. 4, Oral, H302 Repr. 2, H361d STOT RE 1, H372 Aquatic Chronic 3, H412 Skin Irrit. 2, H315		
octamethylcyclotetrasiloxane 556-67-2 209-136-7 01-2119529238-36	0,1-< 1 %	Aquatic Chronic 1, H410 Repr. 2, H361f Flam. Liq. 3, H226	M chronic = 10	SVHC PBT/vPvB
Decamethylcyclopentasiloxane 541-02-6 208-764-9 01-2119511367-43	0,1-< 1 %			SVHC PBT/vPvB
Dodecamethylcyclohexasiloxane 540-97-6 208-762-8 01-2119517435-42	0,1-< 1 %	Aquatic Chronic 4, H413		SVHC PBT/vPvB

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:

Rinse with running water and soap.

Obtain medical attention if irritation persists.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

Prolonged or repeated contact may cause skin irritation.

Prolonged or repeated contact may cause eye irritation.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

water, carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released. Silicon dioxide

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional information:

In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

Ensure adequate ventilation.

Wear protective equipment.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.

See advice in section 8

Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities Store in a cool, dry place.

Keep container tightly sealed.

Refer to Technical Data Sheet

7.3. Specific end use(s) Silicone adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS, INHALABLE DUST]		6	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [Dust, inhalable dust]		10	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [Dust, respirable dust]		4	Time Weighted Average (TWA):		EH40 WEL
Dimethylbis[(1-oxoneodecyl)oxy]stannane 68928-76-7 [TIN COMPOUNDS, ORGANIC, EXCEPT CYHEXATIN (ISO), (AS SN)]		0,1	Time Weighted Average (TWA):		EH40 WEL
Dimethylbis[(1-oxoneodecyl)oxy]stannane 68928-76-7 [TIN COMPOUNDS, ORGANIC, EXCEPT CYHEXATIN (ISO), (AS SN)]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Dimethylbis[(1-oxoneodecyl)oxy]stannane 68928-76-7 [TIN COMPOUNDS, ORGANIC, EXCEPT CYHEXATIN (ISO), (AS SN)]		0,2	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL

Occupational Exposure Limits

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [DUSTS NON-SPECIFIC]		10	Time Weighted Average (TWA):		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS]		2,4	Time Weighted Average (TWA):		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS]		6	Time Weighted Average (TWA):		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [DUSTS NON-SPECIFIC]		4	Time Weighted Average (TWA):		IR_OEL
Dimethylbis[(1-oxoneodecyl)oxy]stannane 68928-76-7 [TIN, ORGANIC COMPOUNDS]		0,2	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL
Dimethylbis[(1-oxoneodecyl)oxy]stannane 68928-76-7		0,1	Time Weighted Average (TWA):	Indicative OELV	IR_OEL

$\label{eq:predicted} \textbf{Predicted No-Effect Concentration (PNEC):}$

Name on list	Environmental Compartment	Exposure period	Value			Remarks	
	Compartment	Period	mg/l	ppm	mg/kg	others	
2-Propanone, O,O',O"-	aqua		0,23978		0 0		
(ethylsilylidyne)trioxime	(freshwater)		mg/l				
58190-57-1							
2-Propanone, O,O',O"-	aqua (marine		0,02398				
(ethylsilylidyne)trioxime	water)		mg/l				
58190-57-1							
2-Propanone, O,O',O"-	sediment				2047,053		
(ethylsilylidyne)trioxime 58190-57-1	(freshwater)				mg/kg		
2-Propanone, O,O',O"-	sediment				204,705		
(ethylsilylidyne)trioxime 58190-57-1	(marine water)				mg/kg		
2-Propanone, O,O',O"-	Soil				240,95		
(ethylsilylidyne)trioxime 58190-57-1					mg/kg		
2-Propanone, O,O',O"-	oral				2,638		
(ethylsilylidyne)trioxime 58190-57-1					mg/kg		
2-Propanone, O,O',O"-	sewage		2,398 mg/l				
(ethylsilylidyne)trioxime 58190-57-1	treatment plant (STP)		_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Octamethylcyclotetrasiloxane	aqua		0,0015				
556-67-2	(freshwater)		mg/l				
Octamethylcyclotetrasiloxane	aqua (marine		0,00015				
556-67-2	water)		mg/l				
Octamethylcyclotetrasiloxane	sewage		10 mg/l				
556-67-2	treatment plant (STP)		To mg/T				
Octamethylcyclotetrasiloxane 556-67-2	sediment (freshwater)				3 mg/kg		
Octamethylcyclotetrasiloxane 556-67-2	sediment (marine water)				0,3 mg/kg		
Octamethylcyclotetrasiloxane 556-67-2	oral				41 mg/kg		
Octamethylcyclotetrasiloxane 556-67-2	Soil				0,54 mg/kg		
Decamethylcyclopentasiloxane	aqua		0,0012				
541-02-6	(freshwater)		mg/l				
Decamethylcyclopentasiloxane 541-02-6	aqua (marine water)		0,00012 mg/l				
Decamethylcyclopentasiloxane	sewage		10 mg/l	1			
541-02-6	treatment plant (STP)		To mg/T				
Decamethylcyclopentasiloxane 541-02-6	sediment (freshwater)				11 mg/kg		
Decamethylcyclopentasiloxane 541-02-6	Soil				2,54 mg/kg		
Decamethylcyclopentasiloxane 541-02-6	oral				16 mg/kg		
Decamethylcyclopentasiloxane 541-02-6	sediment (marine water)				1,1 mg/kg		
Dodecamethylcyclohexasiloxane	sediment		1		13,5 mg/kg		
540-97-6	(freshwater)			1			
Dodecamethylcyclohexasiloxane 540-97-6	oral				66,7 mg/kg		
Dodecamethylcyclohexasiloxane 540-97-6	sediment (marine water)				1,35 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
2-Propanone, O,O',O"- (ethylsilylidyne)trioxime 58190-57-1	Workers	Inhalation	Long term exposure - systemic effects		0,41857 mg/m3	
2-Propanone, O,O',O"- (ethylsilylidyne)trioxime 58190-57-1	Workers	dermal	Long term exposure - systemic effects		0,05935 mg/kg	
2-Propanone, O,O',O"- (ethylsilylidyne)trioxime 58190-57-1	General population	Inhalation	Long term exposure - systemic effects		0,10322 mg/m3	
2-Propanone, O,O',O"- (ethylsilylidyne)trioxime 58190-57-1	General population	oral	Long term exposure - systemic effects		0,02968 mg/kg	
2-Propanone, O,O',O"- (ethylsilylidyne)trioxime 58190-57-1	General population	dermal	Long term exposure - systemic effects		0,02968 mg/kg	
Octamethylcyclotetrasiloxane 556-67-2	Workers	inhalation	Long term exposure - systemic effects		73 mg/m3	
Octamethylcyclotetrasiloxane 556-67-2	Workers	inhalation	Long term exposure - local effects		73 mg/m3	
Octamethylcyclotetrasiloxane 556-67-2	General population	inhalation	Long term exposure - systemic effects		13 mg/m3	
Octamethylcyclotetrasiloxane 556-67-2	General population	inhalation	Long term exposure - local effects		13 mg/m3	
Octamethylcyclotetrasiloxane 556-67-2	General population	oral	Long term exposure - systemic effects		3,7 mg/kg	
Decamethylcyclopentasiloxane 541-02-6	Workers	inhalation	Long term exposure - systemic effects		97,3 mg/m3	
Decamethylcyclopentasiloxane 541-02-6	Workers	inhalation	Long term exposure - local effects		24,2 mg/m3	
Decamethylcyclopentasiloxane 541-02-6	General population	oral	Long term exposure - systemic effects		5 mg/kg	
Decamethylcyclopentasiloxane 541-02-6	General population	inhalation	Long term exposure - systemic effects		17,3 mg/m3	
Decamethylcyclopentasiloxane 541-02-6	General population	inhalation	Long term exposure - local effects		4,3 mg/m3	
Dodecamethylcyclohexasiloxane 540-97-6	Workers	inhalation	Long term exposure - local effects		1,22 mg/m3	
Dodecamethylcyclohexasiloxane 540-97-6	Workers	inhalation	Acute/short term exposure - local effects		6,1 mg/m3	
Dodecamethylcyclohexasiloxane 540-97-6	General population	inhalation	Long term exposure - local effects		0,3 mg/m3	
Dodecamethylcyclohexasiloxane 540-97-6	General population	inhalation	Acute/short term exposure - local effects		1,5 mg/m3	

Biological Exposure Indices: None

8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly

ventilated area

Filter type: A (EN 14387)

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; >= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing. Protective eye equipment should conform to EN166.

Skin protection:

Wear suitable protective clothing.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state liquid
Delivery form liquid
Colour copper
Odor characteristic

Melting pointNot applicable, Product is a liquidInitial boiling pointCurrently under determinationFlammabilityCurrently under determinationExplosive limitsCurrently under determination

Flash point $> 100 \, ^{\circ}\text{C} \, (> 212 \, ^{\circ}\text{F})$

Auto-ignition temperature

Currently under determination

Decomposition temperature

Currently under determination

Solubility (qualitative) Insoluble

(20 °C (68 °F); Solvent: Water)

Partition coefficient: n-octanol/water

Not applicable
Mixture

Vapour pressure Currently under determination

Density 1,02 - 1,06 g/cm3 LCT STM 107; Weight per Gallon -

Gardner Cup Method

Relative vapour density: Currently under determination

Particle characteristics

Not applicable

Product is a liquid

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with oxidants, acids and lyes

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Stable under normal conditions of storage and use.

Excessive heat.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

None if used for intended purpose.

SECTION 11: Toxicological information

1.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
2-Propanone, O,O',O"- (ethylsilylidyne)trioxime 58190-57-1	LD50	> 2.500 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
Dimethyltindineodecanoat e 68928-76-7	LD50	892 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
octamethylcyclotetrasilox ane 556-67-2	LD50	> 4.800 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Decamethylcyclopentasilo xane 541-02-6	LD50	> 5.000 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Dodecamethylcyclohexasi loxane 540-97-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
2-Propanone, O,O',O"-	LD50	> 2.493,77	rat	OECD Guideline 402 (Acute Dermal Toxicity)
(ethylsilylidyne)trioxime		mg/kg		
58190-57-1				
Dimethyltindineodecanoat	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
e				
68928-76-7				
octamethylcyclotetrasilox	LD50	> 2.375 mg/kg	rat	equivalent or similar to OECD Guideline 402 (Acute
ane				Dermal Toxicity)
556-67-2				
Decamethylcyclopentasilo	LD50	> 2.000 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute
xane				Dermal Toxicity)
541-02-6				
Dodecamethylcyclohexasi	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
loxane				
540-97-6				

Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Test atmosphere	Exposure	Species	Method
CAS-No.	type			time		
octamethylcyclotetrasilox	LC50	36 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute
ane						Inhalation Toxicity)
556-67-2						-
Decamethylcyclopentasilo	LC50	8,67 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute
xane						Inhalation Toxicity)
541-02-6						-

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Dimethyltindineodecanoat e 68928-76-7	irritating or corrosive	15 min	Human, EpiSkinTM (SM), Reconstructed Human Epidermis (RHE)	OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method)
Dimethyltindineodecanoat e 68928-76-7	not corrosive	1 h	Human, EpiDermTM SIT (EPI-200), Reconstructed Human Epidermis (RHE)	OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method)
octamethylcyclotetrasilox ane 556-67-2	not irritating		rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Decamethylcyclopentasilo xane 541-02-6	not irritating	24 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Dodecamethylcyclohexasi loxane 540-97-6	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Dimethyltindineodecanoat	not irritating		Bovine, cornea,	OECD Guideline 437 (BCOP)
e			in vitro test	
68928-76-7				
octamethylcyclotetrasilox	not irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye
ane				Irritation / Corrosion)
556-67-2				
Decamethylcyclopentasilo	not irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye
xane				Irritation / Corrosion)
541-02-6				
Dodecamethylcyclohexasi	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
loxane				
540-97-6				

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances	Result	Test type	Species	Method
CAS-No.				
octamethylcyclotetrasilox	not sensitising	Guinea pig maximisation	guinea pig	OECD Guideline 406 (Skin Sensitisation)
ane		test		
556-67-2				
Decamethylcyclopentasilo	not sensitising	Mouse local lymphnode	mouse	equivalent or similar to OECD Guideline
xane		assay (LLNA)		429 (Skin Sensitisation: Local Lymph
541-02-6				Node Assay)
Dodecamethylcyclohexasi	not sensitising	Guinea pig maximisation	guinea pig	OECD Guideline 406 (Skin Sensitisation)
loxane		test		
540-97-6				

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
octamethylcyclotetrasilox ane 556-67-2	negative	bacterial gene mutation assay	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
octamethylcyclotetrasilox ane 556-67-2	negative	in vitro mammalian chromosome aberration test	with and without		equivalent or similar to OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
octamethylcyclotetrasilox ane 556-67-2	negative	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Decamethylcyclopentasilo xane 541-02-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Decamethylcyclopentasilo xane 541-02-6	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Decamethylcyclopentasilo xane 541-02-6	negative	mammalian cell gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Dodecamethylcyclohexasi loxane 540-97-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Dodecamethylcyclohexasi loxane 540-97-6	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
octamethylcyclotetrasilox ane 556-67-2	negative	inhalation		rat	equivalent or similar to OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
octamethylcyclotetrasilox ane 556-67-2	negative	oral: gavage		rat	equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
Decamethylcyclopentasilo xane 541-02-6	negative	inhalation		rat	OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)
Decamethylcyclopentasilo xane 541-02-6	negative	inhalation: vapour		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Dodecamethylcyclohexasi loxane 540-97-6	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Decamethylcyclopentasilo xane 541-02-6	not carcinogenic	inhalation: vapour	2 y 6 h/d, 5 d/w	rat	male/female	EPA OPPTS 870.4300 (Combined Chronic Toxicity / Carcinogenicity)

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances	Result / Value	Test type	Route of	Species	Method
CAS-No.			application		
octamethylcyclotetrasilox	NOAEL P 300 ppm	two-	inhalation	rat	equivalent or similar to
ane		generation			OECD Guideline 416 (Two-
556-67-2	NOAEL F1 300 ppm	study			Generation Reproduction
					Toxicity Study)
Decamethylcyclopentasilo	NOAEL P \geq = 2,496 mg/l	two-	inhalation:	rat	EPA OPPTS 870.3800
xane		generation	vapour		(Reproduction and Fertility
541-02-6	NOAEL F1 $>= 2,496 \text{ mg/l}$	study			Effects)
	NOAEL F2 $>= 2,496 \text{ mg/l}$				
Dodecamethylcyclohexasi	NOAEL P 1.000 mg/kg	screening	oral: gavage	rat	OECD Guideline 422
loxane					(Combined Repeated Dose
540-97-6	NOAEL F1 1.000 mg/kg				Toxicity Study with the
					Reproduction /
					Developmental Toxicity
					Screening Test)

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
2-Propanone, O,O',O"- (ethylsilylidyne)trioxime 58190-57-1	NOAEL 11,87 mg/kg			rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
octamethylcyclotetrasilox ane 556-67-2	LOAEL 35 ppm	inhalation	6 h nose only inhalation 5 days/week for 13 weeks	rat	OECD Guideline 412 (Repeated Dose Inhalation Toxicity: 28/14-Day)
octamethylcyclotetrasilox ane 556-67-2	NOAEL 960 mg/kg	dermal	3 w 5 d/w	rabbit	equivalent or similar to OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
Decamethylcyclopentasilo xane 541-02-6	NOAEL >= 1.000 mg/kg	oral: gavage	13 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Decamethylcyclopentasilo xane 541-02-6	NOAEL >= 2,42 mg/l	inhalation: vapour	2 y 6 h/d, 5 d/w	rat	equivalent or similar to OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Decamethylcyclopentasilo xane 541-02-6	NOAEL >= 1.600 mg/kg	oral: gavage	28 d 6 h/d, 7 d/w	rat	equivalent or similar to OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
Dodecamethylcyclohexasi loxane 540-97-6	NOAEL 1.000 mg/kg	oral: gavage	29 d daily, 7 d/w	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:

Do not empty into drains / surface water / ground water. Self-classification according to Article 12(b) of (EU) 1272/2008.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
octamethylcyclotetrasiloxane	NOEC	0,0044 mg/l	93 d	Salmo gairdneri (new name:	EPA OPPTS 797.1600 (Fish
556-67-2				Oncorhynchus mykiss)	Early Life Stage Toxicity
					Test)
octamethylcyclotetrasiloxane	LC50	Toxicity > Water	96 h	Oncorhynchus mykiss	EPA OTS 797.1400 (Fish
556-67-2		solubility			Acute Toxicity Test)
Decamethylcyclopentasiloxan	LC50	Toxicity > Water	96 h	Leuciscus idus	OECD Guideline 204 (Fish,
e		solubility			Prolonged Toxicity Test:
541-02-6					14-day Study)
Decamethylcyclopentasiloxan	NOEC	Toxicity > Water	90 d	Oncorhynchus mykiss	OECD Guideline 210 (fish
e		solubility			early lite stage toxicity test)
541-02-6					
Dodecamethylcyclohexasiloxa	NOEC	Toxicity > Water	90 d	Oncorhynchus mykiss	OECD Guideline 210 (fish
ne		solubility			early lite stage toxicity test)
540-97-6		-			

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
Dimethyltindineodecanoate	EC50	39 mg/l	48 h	Daphnia magna	OECD Guideline 202
68928-76-7					(Daphnia sp. Acute
					Immobilisation Test)
octamethylcyclotetrasiloxane	EC50	Toxicity > Water	48 h	Daphnia magna	EPA OTS 797.1300
556-67-2		solubility			(Aquatic Invertebrate Acute
					Toxicity Test, Freshwater
					Daphnids)
Decamethylcyclopentasiloxan	EC50	Toxicity > Water	48 h	Daphnia magna	OECD Guideline 202
e		solubility			(Daphnia sp. Acute
541-02-6					Immobilisation Test)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
octamethylcyclotetrasiloxane	NOEC	7.9 µg/l	21 d	Daphnia magna	EPA OTS 797.1330
556-67-2					(Daphnid Chronic Toxicity
					Test)
Decamethylcyclopentasiloxan	NOEC	Toxicity > Water	21 d	Daphnia magna	OECD 211 (Daphnia
e		solubility			magna, Reproduction Test)
541-02-6					
Dodecamethylcyclohexasiloxa	NOEC	Toxicity > Water	21 d	Daphnia magna	OECD 211 (Daphnia
ne		solubility			magna, Reproduction Test)
540-97-6					

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
2-Propanone, O,O',O"- (ethylsilylidyne)trioxime 58190-57-1	EC50	315,36 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-Propanone, O,O',O"- (ethylsilylidyne)trioxime 58190-57-1	NOEC	62,34 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Dimethyltindineodecanoate 68928-76-7	EC50	7,6 mg/l	72 h	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Dimethyltindineodecanoate 68928-76-7	NOEC	1,2 mg/l	72 h	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
octamethylcyclotetrasiloxane 556-67-2	EC50	Toxicity > Water solubility	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
octamethylcyclotetrasiloxane 556-67-2	EC10	0,022 mg/l	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
Decamethylcyclopentasiloxan e 541-02-6	NOEC	Toxicity > Water solubility	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Decamethylcyclopentasiloxan e 541-02-6	EC50	Toxicity > Water solubility	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Dodecamethylcyclohexasiloxa ne 540-97-6	NOEC	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Dodecamethylcyclohexasiloxa ne 540-97-6	EC50	Toxicity > Water solubility	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
3 3 3	EC50	Toxicity > Water	3 h	activated sludge	ISO 8192 (Test for
556-67-2		solubility			Inhibition of Oxygen
					Consumption by Activated
					Sludge)
Decamethylcyclopentasiloxan	EC50	> 2.000 mg/l	3 h	activated sludge, domestic	EU Method C.11
e					(Biodegradation: Activated
541-02-6					Sludge Respiration
					Inhibition Test)

12.2. Persistence and degradability

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
2-Propanone, O,O',O"- (ethylsilylidyne)trioxime 58190-57-1	not readily biodegradable.		23,6 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Dimethyltindineodecanoate 68928-76-7	not readily biodegradable.	aerobic	0 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
octamethylcyclotetrasiloxane 556-67-2	not readily biodegradable.	aerobic	3,7 %	29 d	OECD Guideline 310 (Ready BiodegradabilityCO2 in Sealed Vessels (Headspace Test)
Decamethylcyclopentasiloxan e 541-02-6	not readily biodegradable.	aerobic	0,14 %	28 d	OECD Guideline 310 (Ready BiodegradabilityCO2 in Sealed Vessels (Headspace Test)
Dodecamethylcyclohexasiloxa ne 540-97-6	not readily biodegradable.	aerobic	4,47 %	28 d	OECD Guideline 310 (Ready BiodegradabilityCO2 in Sealed Vessels (Headspace Test)

12.3. Bioaccumulative potential

Hazardous substances	Bioconcentratio	Exposure time	Temperature	Species	Method
CAS-No.	n factor (BCF)				
octamethylcyclotetrasiloxane	12.400	28 d		Pimephales	EPA OTS 797.1520 (Fish
556-67-2				promelas	Bioconcentration Test-Rainbow
					Trout)
Decamethylcyclopentasiloxan	7.060	35 d		Pimephales	OECD Guideline 305
e				promelas	(Bioconcentration: Flow-through
541-02-6					Fish Test)
Dodecamethylcyclohexasiloxa	1.160	49 d		Pimephales	OECD Guideline 305
ne				promelas	(Bioconcentration: Flow-through
540-97-6					Fish Test)

12.4. Mobility in soil

Hazardous substances CAS-No.	LogPow	Temperature	Method
Dimethyltindineodecanoate 68928-76-7	5,5		QSAR (Quantitative Structure Activity Relationship)
octamethylcyclotetrasiloxane 556-67-2	6,98	21,7 °C	other guideline:
Decamethylcyclopentasiloxan	8,07	24,6 °C	other guideline:
e			
541-02-6			
Dodecamethylcyclohexasiloxa	8,87	23,6 °C	other guideline:
ne			
540-97-6			

12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
Dimethyltindineodecanoate	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
68928-76-7	Bioaccumulative (vPvB) criteria.
octamethylcyclotetrasiloxane	Fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
556-67-2	Bioaccumulative (vPvB) criteria.
Decamethylcyclopentasiloxane	Fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
541-02-6	Bioaccumulative (vPvB) criteria.
Dodecamethylcyclohexasiloxane	Fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
540-97-6	Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Do not empty into drains / surface water / ground water.

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

08 04 10 Waste adhesives and sealants other than those mentioned in 08 04 09.

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

14.1. UN number

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.2. UN proper shipping name

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.3. Transport hazard class(es)

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.4. Packing group

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.5. Environmental hazards

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.6. Special precautions for user

Not hazardous according to RID, ADR, ADN, IMDG, IATA-DGR.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Persistent organic pollutants (Regulation (EU) 2019/1021):

Not applicable Not applicable Not applicable

VOC content < 3 %

(2010/75/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H361d Suspected of damaging the unborn child.

H361f Suspected of damaging fertility.

H372 Causes damage to organs through prolonged or repeated exposure.

H373 May cause damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

ED: Substance identified as having endocrine disrupting properties

EU OEL: Substance with a Union workplace exposure limit
EU EXPLD 1: Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2 Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC: Substance of very high concern (REACH Candidate List)
PBT: Substance fulfilling persistent, bioaccumulative and toxic criteria

PBT/vPvB: Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very

bioaccumulative criteria

vPvB: Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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