

# Safety Data Sheet according to Regulation (EC) No 1907/2006

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SDS No.: 164436

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LOCTITE SI 5366 CL CR310ML EGF

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

#### 1.1. Product identifier

LOCTITE SI 5366 CL CR310ML EGF

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

Intended use: Silicone sealant

### 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 Fax-no.: +44 (1442) 278071

ua-productsafety.uk@henkel.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):

Skin irritation

Serious eye irritation

Category 2

Category 2

H315 Causes skin irritation.

H319 Causes serious eye irritation.

## 2.2. Label elements

# Label elements (CLP):



Signal word: Warning

Hazard statement: H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statement: P337+P313 If eye irritation persists: Get medical advice/attention.

Response P302+P352 IF ON SKIN: Wash with plenty of soap and water.

#### 2.3. Other hazards

None if used properly.

Evolves acetic acid during cure.

Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

## **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

#### General chemical description:

Acetoxy curing silicone

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Octamethylcyclotetrasiloxane	209-136-7	1-< 3 %	Flam. Liq. 3
556-67-2	01-2119529238-36		H226
			Repr. 2
			H361f
			Aquatic Chronic 4
			H413
			=====
			EU. REACH Candidate List of Substances of
			Very High Concern for Authorization
M-41-14-1	224-221-9	1-< 3 %	(SVHC)
Methyltriacetoxysilane 4253-34-3	01-2119962266-32	1-< 3 %	Acute Tox. 4; Oral H302
4253-34-3	01-2119962266-32		Skin Corr. 1C
	01-211998/09/-22		H314
			Eye Dam. 1
			H318
Decamethylcyclopentasiloxane	208-764-9	0.1-< 1 %	Aquatic Chronic 4
541-02-6	01-2119511367-43	3,2 . 2 /	H413
			====
			EU. REACH Candidate List of Substances of
			Very High Concern for Authorization
			(SVHC)
Dodecamethylcyclohexasiloxane	208-762-8	0,1-< 1 %	Aquatic Chronic 4
540-97-6	01-2119517435-42		H413
			====
			EU. REACH Candidate List of Substances of
			Very High Concern for Authorization
			(SVHC)

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

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

#### 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:

Carbon dioxide, foam, powder

Fine water spray

#### Extinguishing media which must not be used for safety reasons:

None known

#### 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.

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus.

#### **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

Scrape up as much material as possible.

Ensure adequate ventilation.

Store in a partly filled, closed container until 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.

Vapours should be extracted to avoid inhalation.

Ensure that workrooms are adequately ventilated.

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, well-ventilated place.

Refer to Technical Data Sheet

Never allow product to get in contact with water during storage

### 7.3. Specific end use(s)

Silicone sealant

# **SECTION 8: Exposure controls/personal protection**

## 8.1. Control parameters

### **Occupational Exposure Limits**

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Acetic acid 64-19-7 [ACETIC ACID]	10	25	Time Weighted Average (TWA):	Indicative	ECTLV
Acetic acid 64-19-7 [ACETIC ACID]	20	50	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Acetic acid 64-19-7 [ACETIC ACID]	20	50	Short Term Exposure Limit (STEL):		EH40 WEL
Acetic acid 64-19-7 [ACETIC ACID]	10	25	Time Weighted Average (TWA):		EH40 WEL

### **Occupational Exposure Limits**

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
Acetic acid 64-19-7 [ACETIC ACID]	10	25	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Acetic acid 64-19-7 [ACETIC ACID]	10	25	Time Weighted Average (TWA):	Indicative	ECTLV
Acetic acid 64-19-7 [ACETIC ACID]	20	50	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Acetic acid 64-19-7 [ACETIC ACID]	20	50	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL

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

Name on list	Environmental Compartment	nental Exposure Value period				Remarks	
	- Compartment	Perrou	mg/l	ppm	mg/kg	others	
Octamethylcyclotetrasiloxane	aqua		0,0015	1.	3 3		
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)						
Octamethylcyclotetrasiloxane	sediment				3 mg/kg		
556-67-2	(freshwater)						
Octamethylcyclotetrasiloxane	sediment				0,3 mg/kg		
556-67-2	(marine water)						
Octamethylcyclotetrasiloxane	oral				41 mg/kg		
556-67-2							
Octamethylcyclotetrasiloxane	Soil				0,54 mg/kg		
556-67-2							
Methylsilanetriyl triacetate	aqua		1,0 mg/l				
4253-34-3	(freshwater)						
Methylsilanetriyl triacetate	aqua (marine		0,1 mg/l				
4253-34-3	water)						
Methylsilanetriyl triacetate	aqua		10 mg/l				
4253-34-3	(intermittent						
	releases)						
Methylsilanetriyl triacetate	sediment				0,80 mg/kg		
4253-34-3	(freshwater)						
Methylsilanetriyl triacetate	sediment				0,08 mg/kg		
4253-34-3	(marine water)						
Methylsilanetriyl triacetate	Soil				0,13 mg/kg		
4253-34-3			10 4				
Methylsilanetriyl triacetate	sewage		> 10 mg/l				
4253-34-3	treatment plant						
	(STP)		0.0012				
Decamethylcyclopentasiloxane	aqua		0,0012				
541-02-6	(freshwater)		mg/l 0.00012				
Decamethylcyclopentasiloxane 541-02-6	aqua (marine		- ,				
	water)		mg/l				
Decamethylcyclopentasiloxane 541-02-6	sewage treatment plant		10 mg/l				
341-02-0	(STP)						
Decamethylcyclopentasiloxane	sediment				11 mg/kg	+	+
541-02-6	(freshwater)				11 mg/kg		
Decamethylcyclopentasiloxane	Soil			+	1,27 mg/kg		
541-02-6	3011				1,27 mg/kg		
Decamethylcyclopentasiloxane	oral			+	16 mg/kg		
541-02-6	Orai				10 mg/kg		
Decamethylcyclopentasiloxane	sediment				1,1 mg/kg		
541-02-6	(marine water)				1,1 mg/kg		
Dodecamethylcyclohexasiloxane	sewage		1 mg/l				
540-97-6	treatment plant		1 IIIg/1				
540 71 0	(STP)						
Dodecamethylcyclohexasiloxane	sediment				13 mg/kg		
540-97-6	(freshwater)				15 116/116		
Dodecamethylcyclohexasiloxane	Soil				3,77 mg/kg		
540-97-6	5011				5,77 mg/kg		
Dodecamethylcyclohexasiloxane	oral				66,7 mg/kg		
540-97-6	Olai				00,7 mg/kg		
Dodecamethylcyclohexasiloxane	sediment				1,3 mg/kg		
540-97-6	(marine water)				1,5 mg/kg		
+	(maine mater)	l .	1	1	1	1	1

# **Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
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	
Methylsilanetriyl triacetate 4253-34-3	Workers	inhalation	Long term exposure - systemic effects		25 mg/m3	
Methylsilanetriyl triacetate 4253-34-3	Workers	inhalation	Acute/short term exposure - systemic effects		25 mg/m3	
Methylsilanetriyl triacetate 4253-34-3	Workers	dermal	Long term exposure - systemic effects		14,5 mg/kg	
Methylsilanetriyl triacetate 4253-34-3	Workers	dermal	Acute/short term exposure - systemic effects		14,5 mg/kg	
Methylsilanetriyl triacetate 4253-34-3	General population	inhalation	Long term exposure - local effects		5,1 mg/m3	
Methylsilanetriyl triacetate 4253-34-3	General population	inhalation	Acute/short term exposure - local effects		5,1 mg/m3	
Methylsilanetriyl triacetate 4253-34-3	General population	dermal	Long term exposure - systemic effects		7,2 mg/kg	
Methylsilanetriyl triacetate 4253-34-3	General population	dermal	Acute/short term exposure - systemic effects		7,2 mg/kg	
Methylsilanetriyl triacetate 4253-34-3	General population	oral	Long term exposure - systemic effects		1 mg/kg	
Methylsilanetriyl triacetate 4253-34-3	General population	oral	Acute/short term exposure - systemic effects		1 mg/kg	
Decamethylcyclopentasiloxane 541-02-6	Workers	inhalation	Acute/short term exposure - systemic effects		97,3 mg/m3	
Decamethylcyclopentasiloxane 541-02-6	Workers	inhalation	Acute/short term exposure - local effects		24,2 mg/m3	
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	inhalation	Acute/short term exposure - systemic effects		17,3 mg/m3	
Decamethylcyclopentasiloxane 541-02-6	General population	inhalation	Acute/short term exposure - local effects		4,3 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		4,3 mg/m3	

			effects		
Decamethylcyclopentasiloxane 541-02-6	General population	oral	Acute/short term exposure - systemic effects	5 mg/kg	
Dodecamethylcyclohexasiloxane 540-97-6	Workers	inhalation	Long term exposure - systemic effects	11 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 - systemic effects	2,7 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	
Dodecamethylcyclohexasiloxane 540-97-6	General population	oral	Long term exposure - systemic effects	1,7 mg/kg	
Dodecamethylcyclohexasiloxane 540-97-6	General population	oral	Acute/short term exposure - systemic effects	1,7 mg/kg	

### **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)

This recommendation should be matched to local conditions.

#### 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

Appearance Clear Odor Acetic acid

Odour threshold No data available / Not applicable

Not applicable pΗ

Melting point No data available / Not applicable Solidification temperature No data available / Not applicable

Initial boiling point Not determined  $> 150 \, {}^{\circ}\text{C} \, (> 302 \, {}^{\circ}\text{F})$ Flash point

Evaporation rate No data available / Not applicable No data available / Not applicable Flammability No data available / Not applicable **Explosive limits** 

< 0,1 mm hg Vapour pressure

Relative vapour density: No data available / Not applicable

Density 1,04 g/cm3

() Bulk density No data available / Not applicable Solubility No data available / Not applicable

Solubility (qualitative) Partially soluble

(Solvent: Water)

Solubility (qualitative) Insoluble

(Solvent: Acetone)

Partition coefficient: n-octanol/water No data available / Not applicable No data available / Not applicable Auto-ignition temperature No data available / Not applicable Decomposition temperature Viscosity No data available / Not applicable Viscosity (kinematic) No data available / Not applicable No data available / Not applicable Explosive properties Oxidising properties No data available / Not applicable

#### 9.2. Other information

No data available / Not applicable

### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Strong oxidizing agents.

Polymerises in presence of water.

#### 10.2. Chemical stability

Stable under recommended storage conditions.

#### 10.3. Possibility of hazardous reactions

See section reactivity

## 10.4. Conditions to avoid

No decomposition if used according to specifications.

#### 10.5. Incompatible materials

See section reactivity.

#### 10.6. Hazardous decomposition products

Evolves acetic acid during cure.

At higher temperatures (>150C) may release formaldehyde (traces).

# **SECTION 11: Toxicological information**

## General toxicological information:

Acetic acid is liberated slowly upon contact with moisture.

Acetic acid released during polymerisation of acetoxy curing RTV silicones is irritating to the eyes

## 11.1. Information on toxicological effects

### 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			
Octamethylcyclotetrasilox	LD50	> 4.800 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral
ane				Toxicity)
556-67-2				
Methyltriacetoxysilane	LD50	1.600 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
4253-34-3				
Decamethylcyclopentasilo	LD50	> 5.000 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral
xane				Toxicity)
541-02-6				
Dodecamethylcyclohexasi	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
loxane				
540-97-6				

#### 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			
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	Result	Exposure	Species	Method
CAS-No.		time		
Octamethylcyclotetrasilox	not irritating		rabbit	equivalent or similar to OECD Guideline 404 (Acute
ane	_			Dermal Irritation / Corrosion)
556-67-2				·
Methyltriacetoxysilane	corrosive	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
4253-34-3				
Decamethylcyclopentasilo	not irritating	24 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute
xane				Dermal Irritation / Corrosion)
541-02-6				
Dodecamethylcyclohexasi	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
loxane				
540-97-6				

## 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		
Octamethylcyclotetrasilox	not irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye
ane				Irritation / Corrosion)
556-67-2				
Methyltriacetoxysilane	Category 1		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
4253-34-3	(irreversible			
	effects on the			
	eye)			
Decamethylcyclopentasilo	not irritating	24 h	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				
Methyltriacetoxysilane	not sensitising	Guinea pig maximisation	guinea pig	OECD Guideline 406 (Skin Sensitisation)
4253-34-3		test		
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	Result	Type of study /	Metabolic	Species	Method
CAS-No.		Route of	activation /		
0 . 4 1 1		administration	Exposure time		OECD Guideline 471
Octamethylcyclotetrasilox ane 556-67-2	negative	bacterial gene mutation assay	with and without		(Bacterial Reverse Mutation Assay)
Octamethylcyclotetrasilox	negative	in vitro mammalian	with and without		equivalent or similar to OECD Guideline 473 (In vitro
ane 556-67-2		chromosome aberration test			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)
Methyltriacetoxysilane 4253-34-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Methyltriacetoxysilane 4253-34-3	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Methyltriacetoxysilane 4253-34-3	negative	mammalian cell gene mutation assay	with and without		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		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		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

No data available.

# Reproductive toxicity:

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

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
Octamethylcyclotetrasilox ane 556-67-2	NOAEL P 300 ppm NOAEL F1 300 ppm	two- generation study	inhalation	rat	equivalent or similar to OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)
Methyltriacetoxysilane 4253-34-3	NOAEL P >= $1.000 \text{ mg/kg}$ NOAEL F1 >= $1.000 \text{ mg/kg}$	screening	oral: gavage	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Decamethylcyclopentasilo xane 541-02-6	NOAEL P >= 160 ppm NOAEL F1 >= 160 ppm NOAEL F2 >= 160 ppm	two- generation study	inhalation: vapour	rat	EPA OPPTS 870.3800 (Reproduction and Fertility Effects)
Dodecamethylcyclohexasi loxane 540-97-6	NOAEL P 1.000 mg/kg NOAEL F1 1.000 mg/kg	screening	oral: gavage	rat	OECD Guideline 422 (Combined Repeated Dose 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
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)
Methyltriacetoxysilane 4253-34-3	NOAEL 50 mg/kg	oral: gavage	28-51 d daily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
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)
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.

# **SECTION 12: Ecological information**

### General ecological information:

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

Cured Loctite products are typical polymers and do not pose any immediate environmental hazards.

Precautions required with respect to Environmental Hazards of articles in which this product is used should be considered.

## 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 556-67-2	NOEC	0,0044 mg/l	93 d	Salmo gairdneri (new name: Oncorhynchus mykiss)	other guideline:
Octamethylcyclotetrasiloxane 556-67-2	LC50		96 h	Oncorhynchus mykiss	EPA OTS 797.1400 (Fish Acute Toxicity Test)
Methyltriacetoxysilane 4253-34-3	LC50	> 110 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Decamethylcyclopentasiloxan e 541-02-6	LC50		96 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Decamethylcyclopentasiloxan e 541-02-6	NOEC		90 d	Oncorhynchus mykiss	OECD Guideline 210 (fish early lite stage toxicity test)

### 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				
Octamethylcyclotetrasiloxane	EC50		48 h	Daphnia magna	EPA OTS 797.1300
556-67-2					(Aquatic Invertebrate Acute
					Toxicity Test, Freshwater
					Daphnids)
Decamethylcyclopentasiloxan	EC50		48 h	Daphnia magna	OECD Guideline 202
e					(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		21 d	Daphnia magna	OECD 211 (Daphnia
е					magna, Reproduction Test)
541-02-6					
Dodecamethylcyclohexasiloxa	NOEC			Daphnia magna	OECD 211 (Daphnia
ne					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			1	
Octamethylcyclotetrasiloxane 556-67-2	EC50		96 h	(new name: Pseudokirchneriella	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
				subcapitata)	
Octamethylcyclotetrasiloxane	NOEC	< 0,022 mg/l	96 h		EPA OTS 797.1050 (Algal
556-67-2				(new name: Pseudokirchneriella subcapitata)	Toxicity, Tiers I and II)
Decamethylcyclopentasiloxan	NOEC		96 h	Selenastrum capricornutum	OECD Guideline 201 (Alga,
е				(new name: Pseudokirchneriella	Growth Inhibition Test)
541-02-6				subcapitata)	
Decamethylcyclopentasiloxan	EC50		96 h	Selenastrum capricornutum	OECD Guideline 201 (Alga,
е				(new name: Pseudokirchneriella	Growth Inhibition Test)
541-02-6				subcapitata)	·
Dodecamethylcyclohexasiloxa	NOEC			Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga,
ne					Growth Inhibition Test)
540-97-6					
Dodecamethylcyclohexasiloxa	EC50			Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga,
ne					Growth Inhibition Test)
540-97-6					

## 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				
Octamethylcyclotetrasiloxane	EC50		3 h	activated sludge	ISO 8192 (Test for
556-67-2					Inhibition of Oxygen
					Consumption by Activated
					Sludge)
Decamethylcyclopentasiloxan	EC0	> 10.000 mg/l	30 min	Pseudomonas putida	DIN 38412, part 27
e					(Bacterial oxygen
541-02-6					consumption test)

## 12.2. Persistence and degradability

The product is not biodegradable.

Hazardous substances	Result	Test type	Degradability	Exposure	Method
CAS-No.				time	
Octamethylcyclotetrasiloxane	not readily biodegradable.	aerobic	3,7 %	29 d	OECD Guideline 310 (Ready
556-67-2					BiodegradabilityCO2 in Sealed
					Vessels (Headspace Test)
Decamethylcyclopentasiloxan	not readily biodegradable.	aerobic	0,14 %	28 d	OECD Guideline 310 (Ready
e					BiodegradabilityCO2 in Sealed
541-02-6					Vessels (Headspace Test)
Dodecamethylcyclohexasiloxa	not readily biodegradable.	aerobic	4,47 %	28 d	OECD Guideline 310 (Ready
ne					BiodegradabilityCO2 in Sealed
540-97-6					Vessels (Headspace Test)

## 12.3. Bioaccumulative potential

Does not bioaccumulate.

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

Cured adhesives are immobile.

Hazardous substances	LogPow	Temperature	Method
CAS-No.			
Octamethylcyclotetrasiloxane	6,488	25,1 °C	OECD Guideline 123 (Partition Coefficient (1-Octanol / Water), Slow-
556-67-2			Stirring Method)
Decamethylcyclopentasiloxan	8,023	25,3 °C	OECD Guideline 123 (Partition Coefficient (1-Octanol / Water), Slow-
e			Stirring Method)
541-02-6			
Dodecamethylcyclohexasiloxa	8,87	23,6 °C	not specified
ne			
540-97-6			

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

Hazardous substances	PBT / vPvB
CAS-No.	
Octamethylcyclotetrasiloxane	Fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
556-67-2	Bioaccumulative (vPvB) criteria.
Methyltriacetoxysilane	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
4253-34-3	Bioaccumulative (vPvB) criteria.
Decamethylcyclopentasiloxane	very Persistent and very Bioaccumulative (vPvB)
541-02-6	
Dodecamethylcyclohexasiloxane	Fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
540-97-6	Bioaccumulative (vPvB) criteria.

#### 12.6. Other adverse effects

No data available.

## **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Product disposal:

Dispose of in accordance with local and national regulations.

Collection and delivery to recycling enterprise or other registered elimination institution.

## 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.

Disposal must be made according to official regulations.

#### Waste code

 $08\ 04\ 09$  waste adhesives and sealants containing organic solvents and other dangerous substances

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. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

## **SECTION 15: Regulatory information**

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

< 3 %

VOC content (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 vapor.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H361f Suspected of damaging fertility.

H413 May cause long lasting harmful effects to aquatic life.

#### **Further information:**

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This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

#### Dear Customer,

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