

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

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SDS No.: 656973

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LOCTITE SI 5300 RD

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

1.1. Product identifier

LOCTITE SI 5300 RD

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 AG & Co. KGaA

Henkelstr. 67

40589 Düsseldorf

Germany

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ua-productsafety.de@henkel.com

1.4. Emergency telephone number

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin irritation Category 2

H315 Causes skin irritation.

Serious eye damage Category 1

H318 Causes serious eye damage.

Chronic hazards to the aquatic environment Category 3

H412 Harmful to aquatic life with long lasting effects.

2.2. Label elements

Label elements (CLP):



Contains

Methyltriacetoxy silane

Signal word:	Danger
-	
Hazard statement:	H315 Causes skin irritation.
	H318 Causes serious eye damage.
	H412 Harmful to aquatic life with long lasting effects.
-	
Precautionary statement:	P273 Avoid release to the environment.
Prevention	P280 Wear eye protection/face protection.
Precautionary statement:	P302+P352 IF ON SKIN: Wash with plenty of soap and water.
Response	P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove
	contact lenses, if present and easy to do. Continue rinsing.

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).

Evolves acetic acid during cure.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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

Hazardous components	EC Number	content	Classification
CAS-No.	REACH-Reg No.		
Methyltriacetoxysilane	224-221-9	1- < 5 %	Skin Corr. 1C
4253-34-3	01-2119962266-32		H314
	01-2119987097-22		Eye Dam. 1
			H318
			Acute Tox. 4; Oral
			H302
octamethylcyclotetrasiloxane	209-136-7	0,1-<0,25%	Flam. Liq. 3
556-67-2	01-2119529238-36		H226
			Repr. 2
			H361f
			Aquatic Chronic 1
			H410
			EU. REACH Candidate List of Substances of
			Very High Concern for Authorization
			(SVHC)
			M factor (Chron Aquat Tox): 10
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)
Decamethylcyclopentasiloxane	208-764-9	0,1-< 1 %	Aquatic Chronic 4
541-02-6	01-2119511367-43		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.

After eye contact: Corrosive, may cause permanent damage to eyes (impairment of vision).

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) and carbon dioxide (CO2) can be released.

Silicon dioxide

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

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

Remove sources of ignition.

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:

Good industrial hygiene practices should be observed.

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction. 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

Germany

In gredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category/Remarks	Regulatory list
Diiron trioxide 1309-37-1			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Diiron trioxide 1309-37-1		10	Exposure limit(s):	2	TRGS 900
Diiron trioxide 1309-37-1		1,25	Exposure limit(s):		TRGS 900
Acetic acid 64-19-7 [ACETIC ACID]	10	25	Time Weighted Average (TWA):	Indicative	ECTLV
Acetic acid 64-19-7	10	25	Exposure limit(s):	If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	T RGS 900
Acetic acid 64-19-7			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	T RGS 900
Acetic acid 64-19-7 [ACETIC ACID]	20	50	Short Term Exposure Limit (STEL):	Indicative	ECTLV

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

Name on list	En vi ronmental E Compartment p	Value			Remarks	
	P P	 mg/l	ppm	mg/kg	others	
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						
Methylsilanetriyl triacetate	sewage	> 10 mg/l				
4253-34-3	treatment plant (STP)					
Oct amethy lcyclotetrasilox ane	aqua	0,0015				
556-67-2	(freshwater)	mg/l				
Oct amethy lcyclotetrasilox ane	aqua (marine	0.00015				
556-67-2	water)	mg/l				
Oct amethylcyclotetrasilox ane	sewage	10 mg/l				
556-67-2	treatment plant (STP)	10 mg 1				
Oct amethy lcyclotetrasilox ane	sediment			3 mg/kg		
556-67-2	(freshwater)			1 8 8		
Oct amethy lcyclotetrasilox ane	sediment			0,3 mg/kg		
556-67-2	(marine water)			o,s mg ng		
Octamethylcyclotetrasiloxane	oral			41 mg/kg		
556-67-2				8 8		
Octamethylcyclotetrasiloxane 556-67-2	Soil			0,54 mg/kg		
Dodecamethylcyclohexasiloxane	sewage	1 mg/l				
540-97-6	treatment plant (STP)	i mg i				
Dodecamethylcyclohexasiloxane	sediment			13 mg/kg		
540-97-6	(freshwater)					
Dodecamethylcyclohexasiloxane	Soil			3,77 mg/kg		
540-97-6				, ,		
Dodecamethylcyclohexasiloxane 540-97-6	oral			66,7 mg/kg		
Dodecamethylcyclohexasiloxane	sediment		1	1,3 mg/kg		<u> </u>
540-97-6	(marine water)			-,		
Decamethylcyclopentasiloxane	aqua	0,0012	1			
541-02-6	(freshwater)	mg/l				
Decamethylcyclopentasiloxane	aqua (marine	0,00012				
541-02-6	water)	mg/l				
Decamethylcyclopentasiloxane	sewage	10 mg/l	1			
541-02-6	treatment plant (STP)	1.0.1				
Decamethylcyclopentasilox ane	sediment		1	11 mg/kg		
541-02-6	(freshwater)			88		
Decamethylcyclopentasiloxane 541-02-6	Soil			2,54 mg/kg		
Decamethylcyclopentasiloxane 541-02-6	oral			16 mg/kg		
Decamethylcyclopentasiloxane	sediment		+	1,1 mg/kg		+
541-02-6	(marine water)			1,1 mg/kg		
JT1 UZ-U	(marme water)	Ī	1]	

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
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	
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	
Octamethylcyclotetrasiloxane 556-67-2	Workers	inhalation	Acute/short term exposure - local effects		73 mg/m3	
Octamethylcyclotetrasiloxane 556-67-2	Workers	inhalation	Acute/short term exposure - systemic effects		73 mg/m3	
Octamethylcyclotetrasiloxane 556-67-2	General population	inhalation	Acute/short term exposure - local effects		13 mg/m3	
Octamethylcyclotetrasiloxane 556-67-2	General population	inhalation	Acute/short term exposure - systemic effects		13 mg/m3	
Octamethylcyclotetrasiloxane 556-67-2	General population	oral	Acute/short term exposure - systemic effects		3,7 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 -		2,7 mg/m3	

			systemic effects			
Dodecamethylcyclohexasiloxane	General	inhalation	Longterm	0,3	mg/m3	
540-97-6	population		exposure - local effects			
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	
Decamethylcyclopentasiloxane 541-02-6	Workers	inhalation	Long term exposure - systemic effects	97,3	3 mg/m3	
Decamethylcyclopentasiloxane 541-02-6	Workers	inhalation	Long term exposure - local effects	24,2	2 mg/m3	
Decamethylcyclopentasiloxane 541-02-6	General population	oral	Long term exposure - systemic effects	5 m	g/kg	
Decamethylcyclopentasilox ane 541-02-6	General population	inhalation	Long term exposure - systemic effects	17,3	3 mg/m3	
Decamethylcyclopentasiloxane 541-02-6	General population	inhalation	Long term exposure - local effects	4,3	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.

Eve 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 liquid

liquid red

Odor Acetic acid

Odour threshold No data available / Not applicable

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

Initial boiling point > 100 °C (> 212 °F) Flash point > 100 °C (> 212 °F) > 100 °C (> 212 °F)

Evaporation rate No data available / Not applicable Flammability No data available / Not applicable Explosive limits No data available / Not applicable Vapour pressure No data available / Not applicable Relative vapour density: No data available / Not applicable

Density 1,05 g/cm³

(20 °C (68 °F))

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

Excessive heat.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

Evolves acetic acid during cure.

SECTION 11: Toxicological information

General toxicological information:

Inhalation of vapors in high concentration may cause irritation of respiratory system Acetic acid released during polymerisation of acetoxy curing RTV silicones is irritating to the eyes Acetic acid is liberated slowly upon contact with moisture.

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 CAS-No.	Value type	Value	Species	Method
Methyltriacetoxysilane 4253-34-3	LD50	1.600 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)
Dodecamethylcyclohexasi loxane 540-97-6	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
Decamethylcyclopentasilo xane 541-02-6	LD50	> 5.000 mg/kg	rat	equivalent or similar to OECD Guideline 401 (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		_	
octamethylcyclotetrasilox	LD50	> 2.375 mg/kg	rat	equivalent or similar to OECD Guideline 402 (Acute
ane				Dermal Toxicity)
556-67-2				
Dodecamethylcyclohexasi	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
loxane				
540-97-6				
Decamethylcyclopentasilo	LD50	> 2.000 mg/kg	rabbit	equivalent or similar to OECD Guideline 402 (Acute
xane				Dermal Toxicity)
541-02-6				

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
Methyltriacetoxysilane 4253-34-3	corrosive	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
octamethylcyclotetrasilox ane 556-67-2	not irritating		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)
Decamethylcyclopentasilo xane 541-02-6	not irritating	24 h	rabbit	equivalent or similar to 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 CAS-No.	Result	Exposure time	Species	Method
Methyltriacetoxysilane 4253-34-3	Category 1 (irreversible effects on the eye)	time	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
oct amethylcyclotetrasilox ane 556-67-2	not irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Dodecamethylcyclohexasi loxane 540-97-6	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Decamethylcyclopentasilo xane 541-02-6	not irritating	24 h	rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)

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.				
Methyltriacetoxysilane	not sensitising	Guinea pig maximisation	guinea pig	OECD Guideline 406 (Skin Sensitisation)
4253-34-3		test		
octamethylcyclotetrasilox	not sensitising	Guinea pig maximisation	guinea pig	OECD Guideline 406 (Skin Sensitisation)
ane		test		
556-67-2				
Dodecamethylcyclohexasi	not sensitising	Guinea pig maximisation	guinea pig	OECD Guideline 406 (Skin Sensitisation)
loxane		test		
540-97-6				
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)

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/		
M. d. let		administration	Exposure time		OF CD C : 1 1: 47.1
Methyltriacetoxysilane 4253-34-3	negative	bacterial reverse	with and without		OECD Guideline 471
4255-54-5		mutation assay (e.g Ames test)			(Bacterial Reverse Mutation Assay)
Methyltriacetoxysilane	negative	in vitro mammalian	with and without		OECD Guideline 473 (In vitro
4253-34-3	negative	chromosome	with and without		Mammalian Chromosome
1233 31 3		aberration test			Aberration Test)
Methyltriacetoxysilane	negative	mammalian cell	with and without		OECD Guideline 476 (In vitro
4253-34-3		gene mutation assay			Mammalian Cell Gene
					Mutation Test)
octamethylcyclotetrasilox	negative	bacterial gene	with and without		OECD Guideline 471
ane		mutation assay			(Bacterial Reverse Mutation
556-67-2					Assay)
octamethylcyclotetrasilox	negative	in vitro mammalian	with and without		equivalent or similar to OECD
ane		chromosome			Guideline 473 (In vitro
556-67-2		aberrationtest			Mammalian Chromosome
		mammalian cell	24	1	Aberration Test)
octamethylcyclotetrasilox ane	negative	gene mutation assay	with and without		equivalent or similar to OECD Guideline 476 (In vitro
556-67-2		gene mutation assay			Mammalian Cell Gene
330 07 2					Mutation Test)
Dodecamethylcyclohexasi	negative	bacterial reverse	with and without		OECD Guideline 471
loxane	negarive	mutation assay (e.g	With and Without		(Bacterial Reverse Mutation
540-97-6		Ames test)			Assay)
Dodecamethylcyclohexasi	negative	mammalian cell	with and without		OECD Guideline 476 (In vitro
loxane		gene mutation assay			Mammalian Cell Gene
540-97-6					Mutation Test)
Decamethylcyclopentasilo	negative	bacterial reverse	with and without		OECD Guideline 471
xane		mutation assay (e.g			(Bacterial Reverse Mutation
541-02-6		Ames test)	2.1 1 2.1 .		Assay)
Decamet hylcyclopentasilo xane	negative	in vitro mammalian chromosome	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome
541-02-6		aberration test			Aberration Test)
Decamethylcyclopentasilo	negative	mammalian cell	with and without		OECD Guideline 476 (In vitro
xane	negative	gene mutation assay	with the without		Mammalian Cell Gene
541-02-6		gene matation assay			Mutation Test)
octamethylcyclotetrasilox	negative	inhalation		rat	equivalent or similar to OECD
ane					Guideline 475 (Mammalian
556-67-2					Bone Marrow Chromosome
					Aberration Test)
octamethylcyclotetrasilox	negative	oral: gavage		rat	equivalent or similar to OECD
ane					Guideline 478 (Genetic
556-67-2					Toxicology: Rodent Dominant
Dodgagamathylayalaharari	nagativa	intraperitoneal		mouse	Lethal Test) OECD Guideline 474
Dodecamethylcyclohexasi	negative	пптарентопеа		mouse	
loxane 540-97-6					(Mammalian Erythrocyte Micronucleus Test)
Decamethylcyclopentasilo	negative	inhalation		rat	OECD Guideline 486
xane				1244	(Unscheduled DNA Synthesis
541-02-6					(UDS) Test with Mammalian
					Liver Cells in vivo)
Decamethylcyclopentasilo	negative	inhalation: vapour		rat	OECD Guideline 474
xane		_			(Mammalian Erythrocyte
541-02-6	1			<u> </u>	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
Methyltriacetoxysilane 4253-34-3	NOAEL P >= 1.000mg/kg NOAEL F1 >= 1.000mg/kg	screening	oral: gavage	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test)
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 (T wo- Generation Reproduction Toxicity Study)
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)
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)

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
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)
oct amethylcyclotetrasilox 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)
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)
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)

Aspiration hazard:

No data available.

SECTION 12: Ecological information

General ecological information:

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

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				
Methyltriacetoxysilane 4253-34-3	LC50	> 110 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
octamethylcyclotetrasiloxane 556-67-2	NOEC	0,0044 mg/l	93 d	Salmo gairdneri (new name: Oncorhynchus mykiss)	EPA OPPTS 797.1600 (Fish Early Life Stage Toxicity Test)
octamethylcyclotetrasiloxane 556-67-2	LC50	Toxicity>Water solubility	96 h	Oncorhynchus mykiss	EPA OT S 797.1400 (Fish Acute Toxicity Test)
Decamethylcyclopentasiloxan e 541-02-6	LC50	Toxicity > Water solubility	96 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Decamethylcyclopentasiloxan e 541-02-6	NOEC	Toxicity > Water solubility	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	Toxicity>Water	48 h	Daphnia magna	EPA OTS797.1300
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	S pe cies	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)
Dodecamethylcyclohexasiloxa	NOEC	Toxicity>Water		Daphnia magna	OECD 211 (Daphnia
ne		solubility			magna, Reproduction Test)
540-97-6					
Decamethylcyclopentasilox an	NOEC	Toxicity>Water	21 d	Daphnia magna	OECD 211 (Daphnia
e		solubility			magna, Reproduction Test)
541-02-6		-			

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				
octamethylcyclotetrasiloxane 556-67-2	EC50	Toxicity>Water solubility	96 h	(new name: Pseudokirchneriella subcapitata)	
octamethylcyclotetrasiloxane 556-67-2	EC10	0,022 mg/l	96 h	Selenastrum capricomutum (new name: Pseudokirchneriella subcapitata)	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
Dodecamethylcyclohexasiloxa ne 540-97-6	NOEC	Γoxicity>Water solubility		Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Dodecamethylcyclohexasiloxa ne 540-97-6	EC50	Γoxicity>Water solubility		Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Decamethylcyclopentasiloxan e 541-02-6		Toxicity > Water solubility		(new name: Pseudokirchneriella subcapitata)	, ,
Decamethylcyclopentasiloxan e 541-02-6	EC50	Γoxicity>Water solubility	96 h	Selenastrum capricomutum (new name: 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				
octamethylcyclotetrasiloxane	EC50	Toxicity>Water	3 h	activated sludge	ISO 8192 (Test for
556-67-2		solubility			Inhibition of Oxygen
					Consumption by Activated
					Sludge)
Decamethylcyclopentasilox an	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)
Dodecamethylcyclohexasiloxa	not readily biodegradable.	aerobic	4,47 %	28 d	OECD Guideline 310 (Ready
ne					BiodegradabilityCO2 in Sealed
540-97-6					Vessels (Headspace Test)
Decamet hylcyclopentasilox an	not readily biodegradable.	aerobic	0,14 %	28 d	OECD Guideline 310 (Ready
e					BiodegradabilityCO2 in Sealed
541-02-6					Vessels (Headspace Test)

12.3. Bioaccumulative potential

Haz ardous 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)
Dodecamethylcyclohex asiloxa	1.160	49 d		Pimephales	OECD Guideline 305
ne				promelas	(Bioconcentration: Flow-through
540-97-6					Fish Test)
Decamethylcyclopentasilox an	7.060	35 d		Pimephales	OECD Guideline 305
e				promelas	(Bioconcentration: Flow-through
541-02-6					Fish Test)

12.4. Mobility in soil

Cured adhesives are immobile.

Haz ardous substances	LogPow	Temperature	Method
CAS-No.			
octamethylcyclotetrasiloxane	6,488	25,1 ℃	OECD Guideline 123 (Partition Coefficient (1-Octanol / Water), Slow-
556-67-2			Stirring Method)
Dodecamethylcyclohexasiloxa	8,87	23,6 °C	other guideline:
ne			
540-97-6			
Decamethylcyclopentasilox an	8,023	25,3 °C	OECD Guideline 123 (Partition Coefficient (1-Octanol / Water), Slow-
e			Stirring Method)
541-02-6			

12.5. Results of PBT and vPvB assessment

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

12.6. 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

 $08\ 04\ 09*$ 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

VOC content < 5 % (2010/75/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Germany):

WGK: WGK 2: significantly water endangering (Ordinance on facilities for handling

substances that are hazardous to water (AwSV)) Classification according to AwSV, Annex 1 (5.2)

Storage class according to TRGS 510: 10

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.

H410 Very toxic to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

Further information:

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