



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

Page 1 of 15

LOCTITE SI 5421 known as Loctite(R) 5421 Electrically  
Conductive

SDS No. : 153683  
V004.1

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Replaces version from: 27.09.2017

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

#### 1.1. Product identifier

LOCTITE SI 5421 known as Loctite(R) 5421 Electrically Conductive

#### 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  
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):

Acute hazards to the aquatic environment Category 1

H400 Very toxic to aquatic life.

Chronic hazards to the aquatic environment Category 1

H410 Very toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

##### Label elements (CLP):

##### Hazard pictogram:



Signal word: Warning

Hazard statement: H410 Very toxic to aquatic life with long lasting effects.

**Precautionary statement:** P273 Avoid release to the environment.  
**Prevention**

### 2.3. Other hazards

None if used properly.

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:**

Silicone sealant

**General chemical description:**

Adhesive

**Base substances of preparation:**

Acrylate

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Silver >= 99,9 % Ag in powder (>100nm<1mm ) 7440-22-4	231-131-3 01-2119555669-21	50- 100 %	Aquatic Acute 1 H400 Aquatic Chronic 1 H410 M factor (Acute Aquat Tox): 10 M factor (Chron Aquat Tox): 10
Aluminium powder (stabilised) 7429-90-5	231-072-3 01-2119529243-45	25- 50 %	Water-react. 2 H261 Flam. Sol. 1 H228
Dodec-1-ene 112-41-4	203-968-4 01-2119475509-26	1- < 5 %	Asp. Tox. 1 H304 Aquatic Chronic 1 H410 Aquatic Acute 1 H400
Trimethoxyvinylsilane 2768-02-7	220-449-8 01-2119513215-52	1- < 5 %	Flam. Liq. 3 H226 Acute Tox. 4; Inhalation H332 STOT RE 2; Inhalation H373

**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 if necessary.

Ingestion:  
Do not induce vomiting.  
Seek medical advice.

**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.

Prolonged or repeated skin contact with silver and its salts may cause a blue-gray discoloration of the skin and mucous membranes that is irreversible (Argyria).

**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

**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 (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) can be released.

Formaldehyde

Silica fume

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus.

**Additional information:**

In case of fire, keep containers cool with water spray., Collect contaminated fire fighting water separately. It must not enter drains.

**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.

**6.2. Environmental precautions**

Do not let product enter drains.

**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.

**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.
- Do not eat, drink or smoke while working.
- Wash hands before work breaks and after finishing work.

**7.2. Conditions for safe storage, including any incompatibilities**

- Avoid moisture.
- 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
Silver 7440-22-4 [SILVER (METALLIC)]		0,1	Time Weighted Average (TWA):		EH40 WEL
Silver 7440-22-4 [SILVER, METALLIC]		0,1	Time Weighted Average (TWA):	Indicative	ECLTV
Aluminium 7429-90-5 [ALUMINIUM METAL, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Aluminium 7429-90-5 [ALUMINIUM METAL, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL
Silver 7440-22-4 [SILVER (METALLIC)]		0,1	Time Weighted Average (TWA):		EH40 WEL
Silver 7440-22-4 [SILVER, METALLIC]		0,1	Time Weighted Average (TWA):	Indicative	ECLTV

**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
Silver 7440-22-4 [SILVER (METALLIC)]		0,1	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Silver 7440-22-4 [SILVER, METALLIC]		0,1	Time Weighted Average (TWA):	Indicative	ECLTV
Aluminium 7429-90-5 [ALUMINIUM METAL, RESPIRABLE DUST]	1		Time Weighted Average (TWA):		IR_OEL
Silver 7440-22-4 [SILVER (METALLIC)]		0,1	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Silver 7440-22-4 [SILVER, METALLIC]		0,1	Time Weighted Average (TWA):	Indicative	ECLTV

**Predicted No-Effect Concentration (PNEC):**

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment 7440-22-4	aqua (freshwater)		0,00004 mg/l				
Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment 7440-22-4	aqua (marine water)		0,00086 mg/l				
Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment 7440-22-4	sewage treatment plant (STP)		0,025 mg/l				
Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment 7440-22-4	sediment (freshwater)				438,13 mg/kg		
Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment 7440-22-4	sediment (marine water)				438,13 mg/kg		
Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment 7440-22-4	Air						
Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment 7440-22-4	soil				1,41 mg/kg		
Trimethoxyvinylsilane 2768-02-7	aqua (freshwater)		0,36 mg/l				
Trimethoxyvinylsilane 2768-02-7	aqua (marine water)		0,036 mg/l				
Trimethoxyvinylsilane 2768-02-7	aqua (intermittent releases)		2,4 mg/l				
Trimethoxyvinylsilane 2768-02-7	sewage treatment plant (STP)		6,6 mg/l				
Trimethoxyvinylsilane 2768-02-7	sediment (freshwater)				1,3 mg/kg		
Trimethoxyvinylsilane 2768-02-7	sediment (marine water)				0,13 mg/kg		
Trimethoxyvinylsilane 2768-02-7	soil				0,055 mg/kg		

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

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment 7440-22-4	Workers	inhalation	Long term exposure - systemic effects		0,1 mg/m3	
Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment 7440-22-4	General population	inhalation	Long term exposure - systemic effects		0,04 mg/m3	
Silver >= 99,9 % Ag as powder (>100nm<1mm ) classified for environment 7440-22-4	General population	oral	Long term exposure - systemic effects		1,2 mg/kg	
Trimethoxyvinylsilane 2768-02-7	Workers	dermal	Long term exposure - systemic effects		0,2 mg/kg	
Trimethoxyvinylsilane 2768-02-7	Workers	Inhalation	Long term exposure - systemic effects		2,6 mg/m3	
Trimethoxyvinylsilane 2768-02-7	General population	dermal	Acute/short term exposure - systemic effects		0,1 mg/kg	
Trimethoxyvinylsilane 2768-02-7	General population	Inhalation	Acute/short term exposure - systemic effects		0,7 mg/m3	
Trimethoxyvinylsilane 2768-02-7	General population	dermal	Long term exposure - systemic effects		0,1 mg/kg	
Trimethoxyvinylsilane 2768-02-7	General population	Inhalation	Long term exposure - systemic effects		0,7 mg/m3	
Trimethoxyvinylsilane 2768-02-7	General population	oral	Long term exposure - systemic effects		0,1 mg/kg	
Trimethoxyvinylsilane 2768-02-7	Workers	dermal	Acute/short term exposure - systemic effects		0,2 mg/kg	
Trimethoxyvinylsilane 2768-02-7	Workers	Inhalation	Acute/short term exposure - systemic effects		2,6 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;  $\geq 0.4$  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;  $\geq 0.4$  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	paste
Odor	light brown characteristic
Odour threshold	No data available / Not applicable
pH	Not applicable
Melting point	No data available / Not applicable
Solidification temperature	No data available / Not applicable
Initial boiling point	Not determined
Flash point	> 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 (20 °C (68 °F))	< 6,7 mbar
Relative vapour density:	No data available / Not applicable
Density ( $\rho$ )	2,96 g/cm <sup>3</sup>
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Polymerises in presence of water.
Solubility (qualitative) (Solvent: Acetone)	Partially soluble
Partition coefficient: n-octanol/water	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Decomposition temperature	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
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**

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**

Exposure to air or moisture over prolonged periods.  
Stable under normal conditions of storage and use.

**10.5. Incompatible materials**

See section reactivity.

**10.6. Hazardous decomposition products**

Methanol is liberated slowly upon exposure to moisture.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****General toxicological information:**

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

**Oral toxicity:**

This material is considered to have low toxicity if swallowed.  
Ingestion of large quantities may cause liver or kidney damage.

**Inhalative toxicity:**

Inhalation of vapors in high concentration may cause irritation of respiratory system  
Methanol released during polymerisation of RTV silicones is toxic by inhalation. It is also highly flammable

**Dermal toxicity:**

Prolonged or repeated skin contact with silver and its salts may cause a blue-gray discoloration of the skin and mucous membranes that is irreversible (Argyria).

**Skin irritation:**

Prolonged or repeated contact may cause skin irritation.

**Eye irritation:**

Prolonged or repeated contact may cause eye irritation.

**Acute oral toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Silver >= 99,9 % Ag in powder (>100nm<1mm ) 7440-22-4	LD50	> 2.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Aluminium powder (stabilised) 7429-90-5	LD50	> 15.900 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Dodec-1-ene 112-41-4	LD50	> 5.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Trimethoxyvinylsilane 2768-02-7	LD50	7.120 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)



**Acute inhalative toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Aluminium powder (stabilised) 7429-90-5	LC50	> 5 mg/l	dust/mist	4 h	rat	not specified
Trimethoxyvinylsilane 2768-02-7	LC50	16,8 mg/l	vapour	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

**Acute dermal toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Silver >= 99,9 % Ag in powder (>100nm<1mm ) 7440-22-4	LD50	> 2.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)
Trimethoxyvinylsilane 2768-02-7	LD50	3.540 mg/kg	dermal		rabbit	not specified

**Skin corrosion/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Aluminium powder (stabilised) 7429-90-5	not irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Dodec-1-ene 112-41-4	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Trimethoxyvinylsilane 2768-02-7	not irritating		rabbit	other guideline:

**Serious eye damage/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Aluminium powder (stabilised) 7429-90-5	not irritating		rabbit	FDA Guideline
Dodec-1-ene 112-41-4	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Trimethoxyvinylsilane 2768-02-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

**Respiratory or skin sensitization:**

Hazardous components CAS-No.	Result	Test type	Species	Method
Aluminium powder (stabilised) 7429-90-5	not sensitising	Draize Test	guinea pig	Draize Test
Dodec-1-ene 112-41-4	not sensitising	Buehler test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Trimethoxyvinylsilane 2768-02-7	not sensitising	Guinea pig maximisa tion test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

**Germ cell mutagenicity:**

<b>Hazardous components CAS-No.</b>	<b>Result</b>	<b>Type of study / Route of administration</b>	<b>Metabolic activation / Exposure time</b>	<b>Species</b>	<b>Method</b>
Silver >= 99,9 % Ag in powder (>100nm<1mm ) 7440-22-4	negative	in vitro mammalian cell micronucleus test	with and without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
Aluminium powder (stabilised) 7429-90-5	positive	in vitro mammalian cell micronucleus test	without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
	positive	in vitro mammalian chromosome aberration test	without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Aluminium powder (stabilised) 7429-90-5	negative	oral: gavage		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
	ambiguous	oral: gavage		rat	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
Dodec-1-ene 112-41-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Trimethoxyvinylsilane 2768-02-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	positive	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Trimethoxyvinylsilane 2768-02-7	negative	intraperitoneal		mouse	other guideline:

**Reproductive toxicity:**

Hazardous substances CAS-No.	Result / Classification	Species	Exposure time	Species	Method
Aluminium powder (stabilised) 7429-90-5	NOAEL P = 1.000 mg/kg NOAEL F1 = 1.000 mg/kg	screening oral: gavage	28-53 d	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Trimethoxyvinylsilane 2768-02-7	NOAEL P = 250 mg/kg	one- generation study oral: gavage		rat	OECD Combined Repeated Dose and Reproductive / Developmental Toxicity Screening Test (Precursor Protocol of GL 422)
	NOAEL P = 1.000 mg/kg	one- generation study oral: gavage		rat	OECD Combined Repeated Dose and Reproductive / Developmental Toxicity Screening Test (Precursor Protocol of GL 422)
	NOAEL F1 = 1.000 mg/kg	one- generation study oral: gavage		rat	OECD Combined Repeated Dose and Reproductive / Developmental Toxicity Screening Test (Precursor Protocol of GL 422)

**Repeated dose toxicity**

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Trimethoxyvinylsilane 2768-02-7	NOAEL=< 62,5 mg/kg	oral: gavage	daily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Trimethoxyvinylsilane 2768-02-7		inhalation: vapour	5 days/week for 14 weeks6 hours/day	rat	

**SECTION 12: Ecological information****General ecological information:**

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

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

**12.1. Toxicity****Ecotoxicity:**

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

Very toxic to aquatic life with long lasting effects.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Silver >= 99,9 % Ag in powder (>100nm<1mm ) 7440-22-4	LC50	0,0012 mg/l	Fish	96 h	Pimephales promelas	other guideline:
	EC10	0,00019 mg/l	Fish	217 d	Salmo trutta	OECD Guideline 210 (fish early lite stage toxicity test) other guideline:
Silver >= 99,9 % Ag in powder (>100nm<1mm ) 7440-22-4	EC50	0,00022 mg/l	Daphnia	48 h	Daphnia magna	other guideline:
Silver >= 99,9 % Ag in powder (>100nm<1mm ) 7440-22-4	EC10	0,00016 mg/l	Algae	15 d	other:	other guideline:
Silver >= 99,9 % Ag in powder (>100nm<1mm ) 7440-22-4	NOEC	0,00032 mg/l	chronic Daphnia	21 d	Daphnia magna	EPA OPPTS 850.1300 (Daphnid Chronic Toxicity Test)
Aluminium powder (stabilised) 7429-90-5	NOEC	> 100 mg/l	Fish	96 h	Salmo trutta	OECD Guideline 203 (Fish, Acute Toxicity Test)
Dodec-1-ene 112-41-4	EC50	> 0,18 - 0,32 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Trimethoxyvinylsilane 2768-02-7	LC50	191 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Trimethoxyvinylsilane 2768-02-7	EC50	> 100 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Trimethoxyvinylsilane 2768-02-7	EC50	> 100 mg/l	Algae	72 h		OECD Guideline 201 (Alga, Growth Inhibition Test)
Trimethoxyvinylsilane 2768-02-7	EC 50	> 2.500 mg/l	Bacteria	3 h		OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

## 12.2. Persistence and degradability

### Persistence and Biodegradability:

The product is not biodegradable.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Dodec-1-ene 112-41-4	readily biodegradable	aerobic	> 60 %	OECD 301 A - F

## 12.3. Bioaccumulative potential / 12.4. Mobility in soil

### Mobility:

Cured adhesives are immobile.

### Bioaccumulative potential:

Does not bioaccumulate.

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Silver >= 99,9 % Ag in powder (>100nm<1mm ) 7440-22-4	6,1	70	42 d	Cyprinus carpio	20 °C	other guideline:
Dodec-1-ene 112-41-4						EU Method A.8 (Partition Coefficient)

## 12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB

Silver >= 99,9 % Ag in powder (>100nm<1mm ) 7440-22-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Aluminium powder (stabilised) 7429-90-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Dodec-1-ene 112-41-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Trimethoxyvinylsilane 2768-02-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very 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.

Contribution of this product to waste is very insignificant in comparison to article in which it is used

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**

ADR	3082
RID	3082
ADN	3082
IMDG	3082
IATA	3082

**14.2. UN proper shipping name**

ADR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver)
ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Silver)
IATA	Environmentally hazardous substance, liquid, n.o.s. (Silver)

**14.3. Transport hazard class(es)**

ADR	9
RID	9
ADN	9
IMDG	9
IATA	9

**14.4. Packing group**

ADR	III
RID	III
ADN	III
IMDG	III
IATA	III

**14.5. Environmental hazards**

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	Marine pollutant
IATA	not applicable

**14.6. Special precautions for user**

ADR	UN 1845, carbon dioxide, solid, as a coolant (does not apply for Germany, Sweden, France, Belgium, UK) Tunnelcode:
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

The transport classifications in this section apply generally to packed and bulk goods alike. For containers with a net volume of no more than 5 L for liquid substances or a net mass of no more than 5 kg for solid substances per individual or inner package, the exemptions SP 375 (ADR), 197 (IATA), 969 (IMDG) may be applied, which can result in a deviation from the transport classification for packed goods.

**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 0 %  
(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.

H228 Flammable solid.

H261 In contact with water releases flammable gas.

H304 May be fatal if swallowed and enters airways.

H332 Harmful if inhaled.

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

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

### Further information:

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.

**Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.**