

Material Safety Data Sheet According to (EC) No 1907/2006

Heat Trace Sealant (RTV 1.5 OZ/200+ Sealant, 40ml)

MSDS No: 1 5 2 8 5 4
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Section 1: Identification of the Substance /Mixture and of the Company/Undertaking

1.1 Product identifier

RTV 1.5 OZ/200+ Sealant, 40ml

Contains

Silicon compounds
Butanone oxime

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

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Section 2: Hazards Identification

2.1 Classification of the substance or mixture Classification (CLP)

Serious eye damage	Category 1
H318 Causes serious eye damage	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction	
Carcinogenicity	Category 2
H351 Suspected of causing cancer	

2.2 Label elements (CLP)

Hazard Pictogram:



Signal word: Danger

Hazard statement: H317 May cause an allergic skin reaction
H318 Causes serious eye damage
H351 Suspected of causing cancer

Precautionary statement: For consumer use only: P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P501 Dispose of waste and residues in accordance with local authority requirements.

Precautionary statement: Prevention	P280 Wear protective gloves/protective clothing/eye protection/face protection
Precautionary statement: 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. P333+ P313 If skin irritation or rash occurs: Get medical advice/attention.
Other hazards:	Methyl ethyl ketoxime is formed 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

Silicone sealant

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

Hazardous components CAS-No.	EC Number REACH-Reg No.	Content	Classification
Silicon Compounds		5- < 10%	Skin Sens. 1 H317 Eye Dam. 1 H318 STOT RE 2 H373
Butanone oxime 96-29-7	202-496-6 01-2119539477-28	1- < 3%	Carc. 2 H351 Eye Dam. 1 H318 Skins sens. 1 H317 Acute tox. 4; Dermal H312
Octamethylcyclotetrasiloxane 556-67-2	209-136-7 01-2119529238-36	0.1- < 1%	Flam. Liq. 3 H226 Repr. 2 H361f Aquatic Chronic 4 H413 EU REACH Candidate List of Substances of Very High Concern for Authorization (SVHC)
Hexamethyldisilazane 999-97-3	213-668-5 01-2119438176-38	0.1- < 1%	Flam. Liq. 2 H225 Acute Tox. 4: Oral H302 Acute Tox. 3: Dermal H311 Acute Tox. 4: Inhalation H332 Aquatic Chronic 3 H412
Dodecamethylcyclohexasiloxane 540-87-6	208-726-8 01-2119517435-42	0.1- < 1%	Aquatic Chronic 4 H413 EU REACH Candidate List of Substances of Very High Concern for Authorization (SVHC)
Dimethyltindinedecanoate	273-028-6 01-2120770324-57	0.1- < 1%	Acute Tox. 4; Oral H302 Repr. 2 H361d STOT RE 1 H372 Aquatic Chronic 4 H413

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: Rash, Urticaria.

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: Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide, foam, powder, water spray jet, 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

Do not expose to direct heat.

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

5.3 Advice for firefighters

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

Additional Information:

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

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

Wear protective equipment

Ensure adequate ventilation

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.

Sweep up spilled material. Avoid creating dust

Store in a partly filled, closed container until 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
Vapours should be extracted to avoid inhalation.

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

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 ³	Value Type	Short term exposure limit category/ remarks	Regulatory list
Silane, dichlorodimethyl, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Timed Weighted Average (TWA)		EH40 WEL
Silane, dichlorodimethyl, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS, INHALABLE DUST]		6	Timed Weighted Average (TWA)		EH40 WEL
Diiron trioxide 1309-37-1 [ROUGE, RESPIRABLE]		4	Time Weighted Average (TWA):		EH40 WEL
Diiron trioxide 1309-37-1 [ROUGE, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL
Diiron trioxide 1309-37-1 (IRON OXIDE, FUME (AS FE))		5	Time Weighted Average (TWA):		EH40 WEL
Diiron trioxide 1309-37-1 (IRON OXIDE, FUME (AS FE))		10	Short Term Exposure Limit (STEL):		EH40 WEL
Mica 12001-26-2 (MICA, RESPIRABLE)		0.8	Time Weighted Average (TWA):		EH40 WEL
Mica 12001-26-2 (MICA, TOTAL INHALABLE)		10	Time Weighted Average (TWA):		EH40 WEL
Dimethylbis [(1-oxoneodecyl)oxy]stannane 68928-76-7 [TIN COMPOUNDS, ORGANIC, EXCEPT CYHEXATIN (ISO), (AS SN)]		0.1	Time Weighted Average (TWA):		EH40 WEL
Dimethylbis [(1-oxoneodecyl)oxy]stannane 68928-76-7 [TIN COMPOUNDS, ORGANIC, EXCEPT CYHEXATIN (ISO), (AS SN)]		0.2	Short Term Exposure Limit (STEL):		EH40 WEL
Dimethylbis [(1-oxoneodecyl)oxy]stannane 68928-76-7 [TIN COMPOUNDS, ORGANIC, EXCEPT CYHEXATIN (ISO), (AS SN)]			Skin Designation	Can be absorbed through the skin	EH40 WEL

Occupational Exposure Limits

Valid for Ireland

Ingredient (Regulated Substance)	ppm	mg/m ³	Value Type	Short term exposure limit category/ remarks	Regulatory list
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS, TOTAL INHALABLE DUST]		6	Time weighted average (TWA)		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 68611-44-9 [SILICA, AMORPHOUS TOTAL RESPIRABLE DUST]		2,4	Time weighted average (TWA)		IR_OEL
Diiron trioxide 1309-37-1 [IRON OXIDE, FUME (AS FE)]		10	Short Term Exposure Limit (STEL):		IR_OEL
Diiron trioxide 1309-37-1 [ROUGE, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		IR_OEL
Diiron trioxide 1309-37-1 (ROUGE, TOTAL INHALABLE DUST)		10	Time Weighted Average (TWA):		IR_OEL
Diiron trioxide 1309-37-1 (IRON OXIDE, FUME (AS FE))		5	Time Weighted Average (TWA):		IR_OEL
Mica 12001-26-2 (MICA, RESPIRABLE FRACTION)		3	Time Weighted Average (TWA):		IR_OEL
Dimethylbis [(1-oxoneodecyl)oxy]stannane 68928-76-7 [TIN ORGANIC COMPOUNDS, (AS SN)]		0,1	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Dimethylbis [(1-oxoneodecyl)oxy]stannane 68928-76-7 [TIN ORGANIC COMPOUNDS, (AS SN)]		0,2	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL

Predicted No-Effect Concentration (PNEC):

Name on List	Environmental Compartment	Exposure Period	Value	Remarks
Octamethylcyclotetrasiloxane 556-67-2	Aqua (freshwater)		0.0015mg/l	
Octamethylcyclotetrasiloxane 556-67-2	Aqua (marine water)		0.00015 mg/l	
Octamethylcyclotetrasiloxane 556-67-2	Sewage treatment plant (STP)		10mg/l	
Octamethylcyclotetrasiloxane 556-67-2	Sediment (freshwater)		3mg/kg	
Octamethylcyclotetrasiloxane 556-67-2	Sediment (marine water)		0.3mg/kg	
Octamethylcyclotetrasiloxane 556-67-2	Oral		41mg/kg	
Octamethylcyclotetrasiloxane 556-67-2	Soil		0.54mg/kg	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Aqua (freshwater)		0.25mg/l	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Aqua (marine water)		0.025mg/l	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Sediment (freshwater)		0.45mg/kg	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Sediment (marine water)		0.045 mg/kg	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Soil		0.22mg/kg	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Sewage treatment plant (STP)		67mg/l	
Dodecamethylcyclohexasiloxane 540-97-6	Sediment (freshwater)		2.826mg/kg	
Dodecamethylcyclohexasiloxane 540-97-6	Sediment (marine water)		0.282mg/kg	
Dodecamethylcyclohexasiloxane 540-97-6	Soil		3.336mg/kg	
Dodecamethylcyclohexasiloxane 540-97-6	Sewage treatment plant (STP)		1mg/l	

Derived No-Effect Level (DNEL):

Name on List	Application Area	Route of Exposure	Health Effect	Value
Octamethylcyclotetrasiloxane 556-67-2	Workers	Inhalation	Long-term exposure – systemic effects	73mg/m3
Octamethylcyclotetrasiloxane 556-67-2	Workers	Inhalation	Long-term exposure – local effects	73mg/m3
Octamethylcyclotetrasiloxane 556-67-2	Workers	Inhalation	Acute/short term exposure - systemic effects	73mg/m3
Octamethylcyclotetrasiloxane 556-67-2	Workers	Inhalation	Acute/short term exposure - local effects	73mg/m3
Octamethylcyclotetrasiloxane 556-67-2	General Population	Inhalation	Long-term exposure – systemic effects	13mg/m3
Octamethylcyclotetrasiloxane 556-67-2	General Population	Inhalation	Long-term exposure – local effects	13mg/m3
Octamethylcyclotetrasiloxane 556-67-2	General Population	Inhalation	Acute/short term exposure - systemic effects	13mg/m3
Octamethylcyclotetrasiloxane 556-67-2	General Population	Inhalation	Acute/short term exposure - local effects	13mg/m3
Octamethylcyclotetrasiloxane 556-67-2	General Population	Oral	Long-term exposure – systemic effects	3.7mg/m3
Octamethylcyclotetrasiloxane 556-67-2	General Population	Oral	Acute/short term exposure - systemic effects	3.7mg/m3
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	Inhalation	Long-term exposure – systemic effects	53mg/m3
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	Inhalation	Acute/short term exposure - systemic effects	53mg/m3
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	Inhalation	Long-term exposure – local effects	133mg/m3
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	Inhalation	Acute/short term exposure - local effects	133mg/m3
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	Dermal	Long-term exposure – systemic effects	7.5mg/m3
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	Dermal	Acute/short term exposure - systemic effects	7.5mg/m3
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General Population	Inhalation	Long-term exposure – systemic effects	3.7mg/m3
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General Population	Inhalation	Acute/short term exposure - systemic effects	3.7mg/m3
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General Population	Inhalation	Long-term exposure – local effects	1.7mg/m3
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General Population	Inhalation	Acute/short term exposure - local effects	1.7mg/m3
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General Population	Oral	Long-term exposure – systemic effects	1.1mg/m3
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General Population	Oral	Acute/short term exposure - systemic effects	1.1mg/m3
Dodecamethylcyclohexasiloxane 540-97-6	Workers	Inhalation	Long-term exposure – systemic effects	11mg/m3
Dodecamethylcyclohexasiloxane 540-97-6	Workers	Inhalation	Long-term exposure – local effects	1.22mg/m3
Dodecamethylcyclohexasiloxane 540-97-6	Workers	Inhalation	Acute/short term exposure - local effects	6.1mg/m3
Dodecamethylcyclohexasiloxane 540-97-6	General Population	Inhalation	Long-term exposure – systemic effects	2.7mg/m3
Dodecamethylcyclohexasiloxane 540-97-6	General Population	Inhalation	Long-term exposure – local effects	0.3mg/m3
Dodecamethylcyclohexasiloxane 540-97-6	General Population	Inhalation	Acute/short term exposure - local effects	1.5mg/m3
Dodecamethylcyclohexasiloxane 540-97-6	General Population	Oral	Long-term exposure – systemic effects	1.7mg/m3
Dodecamethylcyclohexasiloxane 540-97-6	General Population	Oral	Acute/short term exposure - systemic effects	1.7mg/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 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 copper
Odour	odourless
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	No data available / Not applicable
Flash point	> 93 °C (> 199.4 °F); Tagliabue closed cup
Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	No data available / Not applicable
Vapour pressure	<5 mm hg
Relative vapour density	Heavier than air
Density	1.03 –1.06 g/cm ³
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Polymerises in presence if water
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

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

10.5 Incompatible materials

See section reactivity

10.6 Hazardous decomposition products

Methyl ethyl ketoxime formed during cure

Section 11: Toxicological Information

General toxicology information

Methylethyl ketoxime released during polymerisation of oxime curing RTV silicones is irritating to the respiratory system. Methylethyl ketoxime released during polymerisation of oxime curing silicones. It is harmful in contact with skin and is a skin sensitizer.

Prolonged or repeated contact may cause skin irritation.

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
Silicon compounds	LD50	>2.000 mg/kg	Rat	OECD Guideline 401 (Acute Oral Toxicity)
Butanone oxime 96-29-7	LD50	2.326 mg/kg	Rat	OECD Guideline 401 (Acute Oral Toxicity)
Octamethylcyclotetrasiloxane 556-67-2	LD50	>4.800 mg/kg	Rat	Equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Hexamethyldisilazane 999-97-3	LD50	851 mg/kg	Rat	OECD Guideline 401 (Acute Oral Toxicity)
Dodecamethylcyclohexasiloxane 540-97-6	LD50	>2.000 mg/kg	Rat	OECD Guideline 423 (Acute Oral Toxicity)
Dimethyltindineodecanoate 68928-76-7	LD50	894 mg/kg	Rat	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 components CAS-No.	Value Type	Value	Species	Method
Silicon compounds	LD50	>2.000 mg/kg	Rat	OECD Guideline 402 (Acute Dermal Toxicity)
Butanone oxime 96-29-7	Acute toxicity estimate (ATE)	1.100 mg/kg		Expert judgement
Butanone oxime 96-29-7	LD50	>1.000 mg/kg	Rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Octamethylcyclotetrasiloxane 556-67-2	LD50	>2.375 MG/KG	Rat	Equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Hexamethyldisilazane 999-97-3	LD50	547 mg/kg	Rat	OECD Guideline 402 (Acute Dermal Toxicity)
Dodecamethylcyclohexasiloxane 540-97-6	LD50	>2.000 mg/kg	Rat	OECD Guideline 402 (Acute Dermal Toxicity)
Dimethyltindineodecanoate 68928-76-7	LD50	>2.000 mg/kg	Rat	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity

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

Hazardous components CAS-No.	Value Type	Value	Test atmosphere	Exposure time	Species	Method
Octamethylcyclotetrasiloxane	LC50	36 mg/l	Dust/mist	4h	Rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Hexamethyldisilizane 999-97-3	Acute toxicity estimate (ATE)	10,1 mg/1	vapour			Expert judgement

Skin corrosion/irritation

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

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Butanone oxime 96-29-7	Slightly irritating	24 h	Rabbit	Not specified
Octamethylcyclotetrasiloxane 556-67-2	Not irritating		Rabbit	Equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation/Corrosion)
Dodecamethylcyclohexasiloxane 540-97-6	Not irritating	4 h	Rabbit	OECD Guideline 405 (Acute Eye Irritation/Corrosion)

Serious eye damage/irritation

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

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Butanone oxime 96-29-7	Category 1 (irreversible effects on the eye)		Rabbit	OECD Guideline 405 (Acute Eye Irritation/ Corrosion)
Octamethylcyclotetrasiloxane 556-67-2	Not irritating		Rabbit	Equivalent or similar to OECD Guideline 405 (Acute Eye Irritation/ Corrosion)
Dodecamethylcyclohexasiloxane 540-97-6	Not irritating		Rabbit	OECD Guideline 405 (Acute Eye Irritation/ Corrosion)

Respiratory or skin sensitisation

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

Hazardous components CAS-No.	Result	Test type	Species	Method
Silicon compounds	Sensitising	Guinea pig maximisation test	Guinea pig	OECD Guideline 406 (Skin Sensitisation)
Butanone oxime 69-29-7	Sensitising	Guinea pig maximisation test	Guinea pig	OECD Guideline 406 (skin sensitisation)
Octamethylcyclotetrasiloxane 556-67-2	Not Sensitising	Guinea pig maximisation test	Guinea pig	OECD Guideline 406 (skin sensitisation)
Dodecamethylcyclohexasiloxane 540-97-6	Not Sensitising	Guinea pig maximisation test	Guinea pig	OECD Guideline 406 (skin sensitisation)

Germ cell mutagenicity

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

Hazardous components CAS-No.	Result	Type of study/ Route of administration	Metabolic activation/ exposure time	Species	Method
Silicon compounds	Negative	Bacterial reverse mutation assay (e.g. Ames test)	With and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Butanone oxime 69-29-7	Negative	Bacterial reverse mutation assay (e.g. Ames test)	With and without		EPA OPPTS 870.5265 (The Salmonella typhimurium Bacterial Reverse Mutation Test)
Butanone oxime 69-29-7	Negative	Mammalian cell gene mutation assay	with		OECD Guideline 476 (In Vitro Mammalian Cell Gene Mutation Test)
Butanone oxime 69-29-7	Negative	DNA damage and repair assay, unscheduled DNA synthesis in mammalian cells in vitro			OECD Guideline 482 (Genetic Toxicology : DNA Damage and Repair, Unscheduled DNA Synthesis in Mammalian Cells In Vitro)
Octametylcyclotetrasiloxane 556-67-2	Negative	Bacterial gene mutation assay	With and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Octametylcyclotetrasiloxane 556-67-2	Negative	In vitro mammalian chromosome aberration test	With and without		Equivalent or similar to OECD Guideline 473 (In vitro mammalian chromosome aberration test)
Octametylcyclotetrasiloxane 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)
Hexamethyldisilazane 999-97-3	Negative	Bacterial reverse mutation assay (e.g. Ames test)	With and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Hexamethyldisilazane 999-97-3	Negative	Mammalian cell gene mutation assay	With and without		OECD Guideline 476 (In vitro mammalian cell gene mutation test)
Dodecamethylcyclohexasiloxane 540-97-6	Negative	Bacterial reverse mutation assay (e.g. Ames test)	With and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Dodecamethylcyclohexasiloxane 540-97-6	Negative	Mammalian cell gene mutation assay	With and without		OECD Guideline 476 (In vitro mammalian cell gene mutation test)

Carcinogenicity

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

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Butanone oxime 69-29-7	carcinogenic	Inhalation: vapour	3 – 18 m 6 h/d. 5 d/w	mouse	Male	EPA OTS 798.3300 (Carcinogenicity)

Reproductive toxicity

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

Hazardous components CAS-No.	Result / Value	Test Type	Route of application	Species	Method
Butanone oxime 69-29-7	NOAEL F1 = 200 mg/kg NOAEL F2 = 200 mg/kg	Two generation study	Oral : gavage	Rat	Not specified
Octametylcyclotetrasiloxane 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)
Dodecamethylcyclohexasiloxane 540-97-6	NOAEL P1 = 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 components CAS-No.	Result/Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Silicon compounds	NOAEL 10mg/kg	Oral: gavage		Rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Development Toxicity Screening Test)
Butanone oxime 69-29-7	LOAEL 40 mg/kg	Oral : gavage	13 w Daily	Rat	Not specified
Octametylcyclotetrasiloxane 556-67-2	LOAEL 35 ppm	Inhalation	6 h nose only inhalation 5 d/w for 13 weeks	Rat	OECD Guideline 412 (Repeated dose inhalation toxicity:28/14-Day)
Octametylcyclotetrasiloxane 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)
Dodecamethylcyclohexasiloxane 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 screening test)

Aspiration Hazard

No data available

Section 12: Ecological Information

General ecological information

Do not empty into drains / surface water / ground water
Cured products are typical polymers and do not pose any immediate environmental hazards

12.1 Toxicity

Toxicity (Fish)

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

Hazardous substances CAS-No.	Value Type	Value	Exposure time	Species	Method
Butanone oxime 96-29-7	LC50	320 – 1.000mg/l	96 h	Leuciscus idus	DIN 38412-15
Butanone oxime 96-29-7	NOEC	50 mg/l	14 d	Oryzias latipes	OECD Guideline 204 (Fish Prolonged Toxicity Test: 14-day Study)
Octametylcyclotetrasiloxane 556-67-2	NOEC	0.0044 mg/l	93 d	Salmo gairdneri (new name: oncorhynchus myskiss)	Other guideline
Octametylcyclotetrasiloxane 556-67-2	LC50		96 h	Oncorhynchus myskiss	EPA OTS 797.1400 (Fish Acute Toxicity Test)
Hexamethyldisilizane 999-97-3	LC50	88mg/l	96 h	Brachydanio rerio (new name Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Dimethyltindineodecanoate 68928-76-7	LC50		96 h	Not specified	OECD Guideline 203 (Fish, Acute Toxicity Test)

Toxicity (Daphnia)

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

Hazardous substances CAS-No.	Value Type	Value	Exposure time	Species	Method
Butanone oxime 96-29-7	EC50	>500 mg/l	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
Octametylcyclotetrasiloxane 556-67-2	EC50		48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)
Hexamethyldisilizane 999-97-3	EC50	80mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Dimethyltindineodecanoate 68928-76-7	EC50		48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute 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 CAS-No.	Value Type	Value	Exposure time	Species	Method
Butanone oxime 96-29-7	NOEC	>100 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)
Octametylcyclotetrasiloxane 556-67-2	NOEC	7.9 µg/l	21 d	Daphnia magna	EPA OTS 797.1330 (Daphnid Chronic Toxicity Test)
Dodecamethylcyclohexasiloxane 540-97-6	NOEC			Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)

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

Hazardous substances CAS-No.	Value Type	Value	Exposure time	Species	Method
Butanone oxime 96-29-7	EC50	11.8 mg/l	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, growth Inhibition Test)
Butanone oxime 96-29-7	NOEC	2.56 mg/l	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, growth Inhibition Test)
Octametylcyclotetrasiloxane 556-67-2	EC50		96 h	Selenastrum capricornutum (new name: pseudokirchneriella subcapitata)	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
Octametylcyclotetrasiloxane 556-67-2	NOEC	<0.022 mg/l	96 h	Selenastrum capricornutum (new name: pseudokirchneriella subcapitata)	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
Hexamethyldisilazane 999-97-3	NOEC	2.7 mg/l	72 h	Scenedesmus subspicatus (new name : Desmodesmus subspicatus)	OECD Guideline 201 (Alga, growth Inhibition Test)
Hexamethyldisilazane 999-97-3	EC50	19 mg/l	72 h	Scenedesmus subspicatus (new name : Desmodesmus subspicatus)	OECD Guideline 201 (Alga, growth Inhibition Test)
Dodecamethylcyclohexasiloxane 540-97-6	NOEC			Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, growth Inhibition Test)
Dodecamethylcyclohexasiloxane 540-97-6	EC50			Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, growth Inhibition Test)
Dimethyltindineodecanoate 68928-76-7	EC50		72 h	Not specified	OECD Guideline 201 (Alga, growth Inhibition Test)

Toxicity to micro-organisms

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

Hazardous substances CAS-No.	Value Type	Value	Exposure time	Species	Method
Butanone oxime 96-29-7	EC10	177 mg/l	17 h		DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm Test)
Octametylcyclotetrasiloxane 556-67-2	EC50		3 h	Activated sludge	ISO 8192 (Test for inhibition of oxygen consumption by activated sludge)

12.2 Persistence and degradability

The product is not biodegradable

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Butanone oxime 96-29-7	Inherently biodegradable	Aerobic	70%	14 d	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
Octametylcyclotetrasiloxane 556-67-2	Not readily biodegradable	Aerobic	3.7%	29 d	OECD Guideline 310 (Ready Biodegradability: CO2 In Sealed Vessels (Headspace Test))
Hexamethyldisilazane 999-97-3	Not readily biodegradable	No data	15.3%	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Dodecamethylcyclohexasiloxane 540-97-6	Not readily biodegradable	Aerobic	4.47%	28 d	OECD Guideline 310 (Ready Biodegradability: CO2 In Sealed Vessels (Headspace Test))
Dimethyltindineodecanoate 68928-76-7		Aerobic	0 – 60%		OECD 301 A - F

12.3 Bio accumulative potential

No data available

Hazardous substances CAS-No.	Bio concentration factor (BCF)	Exposure time	Temperature	Species	Method
Butanone oxime 96-29-7	0.5 – 0.6	42 d	25 °C	Oryzias latipes	OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bio concentration in Fish)
Octametylcyclotetrasiloxane 556-67-2	12.400	28 d		Pimephales promelas	EPA OTS 797.1520 (Fish bioconcentration test – rainbow trout)
Dodecamethylcyclohexasiloxane 540-97-6	1.160	49 d		Pimephales promelas	OECD Guideline 305 (Bioconcentration: flow through fish test)
Dimethyltindineodecanoate 68928-76-7	8.650				QSAR (Quantative Structure Activity Relationship)

12.4 Mobility in soil

Cured adhesives are immobile

Hazardous substances CAS-No.	LogPow	Temperature	Method
Butanone oxime 96-29-7	0.65	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol/water), Shake Flask Method)
Octametylcyclotetrasiloxane 556-67-2	6.488	25.1 °C	OECD Guideline 123 (Partition Coefficient (1-Octanol/Water), Slow-Stirring Method)
Dodecamethylcyclohexasiloxane 540-97-6	8.87	23.6 °C	Not specified
Dimethyltindineodecanoate 68928-76-7	5.5		QSAR (Quantative Structure Activity Relationship)

12.5 Results of PBT and vPvB assessment

Hazardous substances CAS-No.	PBT/vPvB
Butanone oxime 96-29-7	Not fulfilling Persistent, Bio accumulative and Toxic (PBT), very Persistent and very Bio accumulative (vPvB) criteria.
Octametylcyclotetrasiloxane 556-67-2	Fulfilling Persistent, Bio accumulative and Toxic (PBT), very Persistent and very Bio accumulative (vPvB) criteria.
Hexamethylsilazane 999-97-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very persistent and very Bioaccumulative (vPvB) criteria.
Dodecamethylcyclohexasiloxane 540-97-6	Fulfilling Persistent, Bio accumulative and Toxic (PBT), very Persistent and very Bio accumulative (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.

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.

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:

H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H302	Harmful if swallowed
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H332	Harmful if inhaled
H351	Suspected of causing cancer
H361 d	Suspected of damaging the unborn child
H361 f	Suspected of damaging fertility
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

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 the product from the point of view of safety requirements and is not intended to guarantee any particular properties.