Heat Trace Limited
Mere's Edge, Chester Road, Helsby,
Frodsham, Cheshire, WA6 0DJ, UK
Telephone: +44 (0)1928 726 451
www.heat-trace.com

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

1.1. Product identifier

HEAT TRACE SEALANT TB40ML EN

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

Heat Trace Limited
Mere's Edge
Chester Road
Helsby
WA6 0DJ
Great Britain
Phone: +44 1928 726451

info@heat-trace.com

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Serious eye damage	Category 1
H318 Causes serious eye damage.	
Carcinogenicity	Category 1B
H350 May cause cancer.	
Specific target organ toxicity - single exposure	Category 2
H371 May cause damage to organs.	

2.2. Label elements (CLP):

Hazard pictogram:

Contains Silicon compounds

2-butanone oxime

Signal word: Danger

Hazard statement:
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H350 May cause cancer.
H371 May cause damage to organs.

Supplemental information Restricted to professional users.

Precautionary statement: Prevention
P201 Obtain special instructions before use.
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.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards

None if used properly.
Self-classification according to Article 12(b) of (EU) 1272/2008.

Following substances are present in a concentration ≥ the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

octamethylcyclotetrasiloxane 556-67-2	PBT/vPvB

SECTION 3: Composition/information on ingredients

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

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M-factors and ATEs	Add. Information
Silicon compounds	1- < 5 %	Skin Sens. 1, H317 Eye Dam. 1, H318 STOT RE 2, H373 Carc. 2, H351	oral:ATE = 2.500 mg/kg	
2-butanone oxime 96-29-7 202-496-6 01-2119539477-28	1- < 3 %	STOT SE 3, H336 STOT RE 2, H373 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 1, H370 Skin Sens. 1, H317 Carc. 1B, H350 Acute Tox. 3, Oral, H301 Acute Tox. 4, Dermal, H312	dermal:ATE = 1.100 mg/kg oral:ATE = 100 mg/kg	
Dimethyltindineodecanoate 68928-76-7 273-028-6 01-2120770324-57	0,1- < 1 %	Acute Tox. 4, Oral, H302 Repr. 2, H361d STOT RE 1, H372 Aquatic Chronic 3, H412 Skin Irrit. 2, H315		
Hexamethyldisilizane 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	inhalation:ATE = 10,1 mg/l;vapour	
octamethylcyclotetrasiloxane 556-67-2 209-136-7 01-2119529238-36	0,01- < 0,1 %	Aquatic Chronic 1, H410 Repr. 2, H361f Flam. Liq. 3, H226	M chronic = 10	SVHC PBT/vPvB

If no ATE values are displayed, please refer to LD/LC50 values in Section 11.
For full text of the H - statements and other abbreviations see section 16 "Other information".

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: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
water, carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:
High pressure waterjet

5.2. Special hazards arising from the substance or mixture
In the event of a fire, carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx) can be released.
Silicon dioxide

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

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid contact with skin and eyes.
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.
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.
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 7631-86-9 [SILICA, AMORPHOUS, RESPIRABLE DUST]		2,4	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9 [SILICA, AMORPHOUS, INHALABLE DUST]		6	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9 [Dust, inhalable dust]		10	Time Weighted Average (TWA):		EH40 WEL
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9 [Dust, respirable dust]		4	Time 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):	15 minutes	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)]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Dimethylbis[(1-oxoneodecyl)oxy]stannane 68928-76-7 [TIN COMPOUNDS, ORGANIC, EXCEPT CYHEXATIN (ISO), (AS SN)]		0,2	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL

Occupational Exposure Limits

Valid for
Ireland

Ingredient [Regulated substance]	ppm	mg/m^3	Value type	Short term exposure limit category / Remarks	Regulatory list
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9		10	Time Weighted Average (TWA):		IR_OEL
[DUSTS NON-SPECIFIC]					
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9 [SILICA, AMORPHOUS]		2,4	Time Weighted Average (TWA):		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9 [SILICA, AMORPHOUS]		6	Time Weighted Average (TWA):		IR_OEL
Silane, dichlorodimethyl-, reaction products with silica 7631-86-9 [DUSTS NON-SPECIFIC]		4	Time Weighted Average (TWA):		IR_OEL
Diiron trioxide 1309-37-1 [IRON OXIDE]		5	Time Weighted Average (TWA):		IR_OEL
Diiron trioxide 1309-37-1 [ROUGE RESPIRABLE DUST]		4	Time Weighted Average (TWA):		IR_OEL
Diiron trioxide 1309-37-1 [IRON OXIDE]		10	Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
Diiron trioxide 1309-37-1 [ROUGE]		10	Time Weighted Average (TWA):		IR_OEL
Butanone oxime 96-29-7 [METHYL ETHYL KETOXIME]	3	10	Time Weighted Average (TWA):		IR_OEL
Butanone oxime 96-29-7 [METHYL ETHYL KETOXIME]	10	33	Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
Mica 12001-26-2 [MICA (RESPIRABLE FRACTION)]		3	Time Weighted Average (TWA):		IR_OEL
Mica 12001-26-2 [MICA]		3	Time Weighted Average (TWA):		IR_OEL
Dimethylbis[(1-oxoneodecyl)oxy]stannane 68928-76-7 [TIN, ORGANIC COMPOUNDS]		0,2	Short Term Exposure Limit (STEL):	15 minutes Indicative OELV	IR_OEL
Dimethylbis[(1-oxoneodecyl)oxy]stannane 68928-76-7 [TIN, ORGANIC COMPOUNDS]		0,1	Time Weighted Average (TWA):	Indicative OELV	IR_OEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
2-butanone oxime 96-29-7	aqua (freshwater)		0,256 mg/l				
2-butanone oxime 96-29-7	aqua (marine water)		0,026 mg/l				
2-butanone oxime 96-29-7	aqua (intermittent releases)		0,118 mg/l				
2-butanone oxime 96-29-7	sewage treatment plant (STP)		177 mg/l				
2-butanone oxime 96-29-7	sediment (freshwater)				1,012 mg/kg		
2-butanone oxime 96-29-7	sediment (marine water)				0,101 mg/kg		
2-butanone oxime 96-29-7	Soil				0,052 mg/kg		
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	sediment (freshwater)				2 mg/kg		
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	sediment (marine water)				0,2 mg/kg		
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Soil				0,25 mg/kg		
Octamethylcyclotetrasiloxane 556-67-2	aqua (freshwater)		0,0015 mg/l				
Octamethylcyclotetrasiloxane 556-67-2	aqua (marine water)		0,00015 mg/l				
Octamethylcyclotetrasiloxane 556-67-2	sewage treatment plant (STP)		10 mg/l				
Octamethylcyclotetrasiloxane 556-67-2	sediment (freshwater)				3 mg/kg		
Octamethylcyclotetrasiloxane 556-67-2	sediment (marine water)				0,3 mg/kg		
Octamethylcyclotetrasiloxane 556-67-2	oral				41 mg/kg		
Octamethylcyclotetrasiloxane 556-67-2	Soil				0,84 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
2-butanone oxime 96-29-7	Workers	inhalation	Long term exposure - systemic effects		0,028 mg/m3	
2-butanone oxime 96-29-7	Workers	inhalation	Long term exposure - local effects		0,9 mg/m3	
2-butanone oxime 96-29-7	Workers	dermal	Long term exposure - systemic effects		0,004 mg/kg	
2-butanone oxime 96-29-7	Workers	dermal	Acute/short term exposure - systemic effects		2,5 mg/kg	
2-butanone oxime 96-29-7	General population	inhalation	Long term exposure - systemic effects		0,0048 mg/m3	
2-butanone oxime 96-29-7	General population	inhalation	Long term exposure - local effects		0,43 mg/m3	
2-butanone oxime 96-29-7	General population	dermal	Long term exposure - systemic effects		0,78 mg/kg	
2-butanone oxime 96-29-7	General population	dermal	Acute/short term exposure - systemic effects		1,5 mg/kg	
2-butanone oxime 96-29-7	General population	oral	Long term exposure - systemic effects		0,0016 mg/kg	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	inhalation	Long term exposure - systemic effects		53 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	inhalation	Acute/short term exposure - systemic effects		53 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	inhalation	Long term exposure - local effects		133 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	inhalation	Acute/short term exposure - local effects		133 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	dermal	Long term exposure - systemic effects		7,5 mg/kg	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	Workers	dermal	Acute/short term exposure - systemic effects		7,5 mg/kg	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General population	inhalation	Long term exposure - systemic effects		3,7 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General population	inhalation	Acute/short term exposure - systemic effects		3,7 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General population	inhalation	Long term exposure - local effects		1,7 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General population	inhalation	Acute/short term exposure - local effects		1,7 mg/m3	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General population	oral	Long term exposure - systemic effects		1,1 mg/kg	
1,1,1,3,3,3-Hexamethyldisilazane 999-97-3	General population	oral	Acute/short term exposure - systemic effects		1,1 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	

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
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	

Biological Exposure Indices:
None

8.2. Exposure controls:

Engineering controls:
Ensure good ventilation/extraction.

Respiratory protection:
Ensure adequate ventilation.
An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area
Filter type: A (EN 14387)

Hand protection:
Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

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

Skin protection:
Wear suitable protective clothing.
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Delivery form	solid
Colour	copper
Odor	odourless
Physical state	solid
Melting point	Not applicable, Determination technically not possible
Solidification temperature	Not applicable, Product is a solid.
Initial boiling point	Not applicable, Decomposes before boiling point is reached
Flammability	Not applicable Non flammable product (flash point is greater than 93°C)
Explosive limits	Not applicable, Product is a solid.
Flash point	> 93 °C (> 199.4 °F); Tagliabue closed cup
Auto-ignition temperature	Not applicable, Product is a solid.
Decomposition temperature	Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use
pH	Not applicable, Product is non-soluble (in water).
Viscosity (kinematic)	Not applicable, Product is a solid.
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Insoluble
Partition coefficient: n-octanol/water	Not applicable Mixture
Vapour pressure (20 °C (68 °F))	< 5 mm hg
Density (25 °C (77 °F))	1,03 - 1,06 g/cm3 None
Relative vapour density: (20 °C)	Heavier than air
Particle characteristics	Not applicable, mixture is a paste.

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity
Reacts with oxidants, acids and lyes

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
Stable under normal conditions of storage and use.
Excessive heat.

10.5. Incompatible materials
See section reactivity.

10.6. Hazardous decomposition products
None if used for intended purpose.

SECTION 11: Toxicological information

General toxicological 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.

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

Acute oral toxicity:

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

Hazardous substances CAS-No.	Value type	Value	Species	Method
Silicon compounds	LD50	> 2.000 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)
Silicon compounds	Acute toxicity estimate (ATE)	2.500 mg/kg		Expert judgement
2-butanone oxime 96-29-7	Acute toxicity estimate (ATE)	100 mg/kg		Expert judgement
Dimethyltindineodecanoate 68928-76-7	LD50	892 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Hexamethyldisilizane 999-97-3	LD50	851 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)

Acute dermal 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	> 2.009 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
2-butanone oxime 96-29-7	Acute toxicity estimate (ATE)	1.100 mg/kg		Expert judgement
Dimethyltindineodecanoate 68928-76-7	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Hexamethyldisilizane 999-97-3	LD50	547 mg/kg	rat	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)

Acute inhalative 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	Test atmosphere	Exposure time	Species	Method
2-butanone oxime 96-29-7	LC50	> 20 mg/l	not specified	4 h	not specified	not specified
Hexamethyldisilizane 999-97-3	Acute toxicity estimate (ATE)	10,1 mg/l	vapour			Expert judgement
octamethylcyclotetrasiloxane 556-67-2	LC50	36 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

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
Silicon compounds	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Dimethyltindineodecanoate 68928-76-7	irritating or corrosive	15 min	Human, EpiSkinTM (SM), Reconstructed Human Epidermis (RHE)	OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method)
Dimethyltindineodecanoate 68928-76-7	not corrosive	1 h	Human, EpiDermTM SIT (EPI-200), Reconstructed Human Epidermis (RHE)	OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method)
octamethylcyclotetrasiloxane 556-67-2	not irritating		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
Silicon compounds	irritating or corrosive		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
2-butanone oxime 96-29-7	Category 1 (irreversible effects on the eye)		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Dimethyltindineodecanoate 68928-76-7	not irritating		Bovine, cornea, in vitro test	OECD Guideline 437 (BCOP)
octamethylcyclotetrasiloxane 556-67-2	not irritating		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 CAS-No.	Result	Test type	Species	Method
Silicon compounds	sensitising	Guinea pig maximisation test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
2-butanone oxime 96-29-7	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)

Germ cell mutagenicity:

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

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Silicon compounds	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2-butanone oxime 96-29-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		EPA OPPTS 870.5265 (The Salmonella typhimurium Bacterial Reverse Mutation Test)
2-butanone oxime 96-29-7	negative	mammalian cell gene mutation assay	with		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
2-butanone oxime 96-29-7	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)
Hexamethyldisilizane 999-97-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Hexamethyldisilizane 999-97-3	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
octamethylcyclotetrasiloxane 556-67-2	negative	bacterial gene mutation assay	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
octamethylcyclotetrasiloxane 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)
octamethylcyclotetrasiloxane 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)
Silicon compounds	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
2-butanone oxime 96-29-7	negative	oral: gavage		rat	EPA OPPTS 870.5385 (In Vivo Mammalian Cytogenetic Tests: Bone Marrow Chromosomal Analysis)
2-butanone oxime 96-29-7	negative	oral: feed		Drosophila melanogaster	EPA OPPTS 870.5385 (In Vivo Mammalian Cytogenetic Tests: Bone Marrow Chromosomal Analysis)
octamethylcyclotetrasiloxane 556-67-2	negative	inhalation		rat	equivalent or similar to OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
octamethylcyclotetrasiloxane 556-67-2	negative	oral: gavage		rat	equivalent or similar to OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal 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
Silicon compounds	carcinogenic	inhalation: vapour	3 - 18 m 6 h/d, 5 d/w	rat	male/female	EPA OTS 798.3300 (Carcinogenicity)
Silicon compounds	carcinogenic	inhalation: vapour	3 - 18 m 6 h/d, 5 d/w	mouse	male/female	EPA OTS 798.3300 (Carcinogenicity)
2-butanone oxime 96-29-7	carcinogenic	inhalation: vapour	3 - 18 m 6 h/d, 5 d/w	mouse	male/female	EPA OTS 798.3300 (Carcinogenicity)
2-butanone oxime 96-29-7	carcinogenic	inhalation: vapour	3 - 18 m 6 h/d, 5 d/w	rat	male/female	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 substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
2-butanone oxime 96-29-7	NOAEL F1 >= 200 mg/kg NOAEL F2 >= 200 mg/kg	Two generation study	oral: gavage	rat	not specified
octamethylcyclotetrasiloxane 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)

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
Silicon compounds	LOAEL 25 mg/kg	oral: gavage	13 w 5 d/week	rat	equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
2-butanone oxime 96-29-7	LOAEL 25 mg/kg	oral: gavage	13 w 5 d/week	rat	equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
octamethylcyclotetrasiloxane 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)
octamethylcyclotetrasiloxane 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)

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

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

12.1. Toxicity

Toxicity (Fish):

LC50 (fish) > 100 mg/l (expert judgement)
NOEC (fish) > 1 mg/l (expert judgement)

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2-butanone oxime 96-29-7	LC50	320 - 1.000 mg/l	96 h	Leuciscus idus	DIN 38412-15
2-butanone oxime 96-29-7	NOEC	50 mg/l	14 d	Oryzias latipes	OECD Guideline 204 (Fish, Prolonged Toxicity Test: 14-day Study)
Hexamethyldisilizane 999-97-3	LC50	88 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	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 OTS 797.1400 (Fish Acute Toxicity Test)

Toxicity (aquatic invertebrates):

EC50 (dafnia) >100 mg/l (OECD 211)

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2-butanone oxime 96-29-7	EC50	> 500 mg/l	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
Dimethyltindineodecanoate 68928-76-7	EC50	39 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Hexamethyldisilizane 999-97-3	EC50	80 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
octamethylcyclotetrasiloxane 556-67-2	EC50	Toxicity > Water solubility	48 h	Daphnia magna	EPA OTS 797.1300 (Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids)

Chronic toxicity (aquatic invertebrates):

NOEC (dafnia) > 1 mg/l (OECD 211)

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2-butanone oxime 96-29-7	NOEC	> 100 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
octamethylcyclotetrasiloxane 556-67-2	NOEC	7.9 µg/l	21 d	Daphnia magna	EPA OTS 797.1330 (Daphnid Chronic Toxicity Test)

Toxicity (Algae):

NOEC (Algae) > 1 mg/l (OECD 201)
EC50 (Algae) > 100 mg/l (OECD 201)

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2-butanone oxime 96-29-7	EC50	11,8 mg/l	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
2-butanone oxime 96-29-7	NOEC	2,56 mg/l	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
Dimethyltindineodecanoate 68928-76-7	EC50	7,6 mg/l	72 h	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Dimethyltindineodecanoate 68928-76-7	NOEC	1,2 mg/l	72 h	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Hexamethyldisilizane 999-97-3	EC10	7,5 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	EU Method C.3 (Algal Inhibition test)
Hexamethyldisilizane 999-97-3	EC50	50 mg/l	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	EU Method C.3 (Algal Inhibition test)
octamethylcyclotetrasiloxane 556-67-2	EC50	Toxicity > Water solubility	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)
octamethylcyclotetrasiloxane 556-67-2	EC10	0,022 mg/l	96 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	EPA OTS 797.1050 (Algal Toxicity, Tiers I and II)

Toxicity (microorganisms):

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

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2-butanone oxime 96-29-7	EC10	177 mg/l	17 h		DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
octamethylcyclotetrasiloxane 556-67-2	EC50	Toxicity > Water solubility	3 h	activated sludge	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)

12.2. Persistence and degradability

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Silicon compounds	not readily biodegradable.	aerobic	28 %	28 d	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))
2-butanone oxime 96-29-7	inherently biodegradable	aerobic	70 %	14 d	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
Dimethyltindineodecanoate 68928-76-7	not readily biodegradable.	aerobic	0 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Hexamethyldisilizane 999-97-3	not readily biodegradable.	no data	15,3 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
octamethylcyclotetrasiloxane 556-67-2	not readily biodegradable.	aerobic	3,7 %	29 d	OECD Guideline 310 (Ready BiodegradabilityCO2 in Sealed Vessels (Headspace Test)

12.3. Bioaccumulative potential

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
2-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 Bioconcentration in Fish)
octamethylcyclotetrasiloxane 556-67-2	12.400	28 d		Pimephales promelas	EPA OTS 797.1520 (Fish Bioconcentration Test-Rainbow Trout)

12.4. Mobility in soil

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	LogPow	Temperature	Method
2-butanone oxime 96-29-7	0,65	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Dimethyltindineodecanoate 68928-76-7	5,5		QSAR (Quantitative Structure Activity Relationship)
octamethylcyclotetrasiloxane 556-67-2	6,98	21,7 °C	other guideline:

12.5. Results of PBT and vPvB assessment

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	PBT / vPvB
2-butanone oxime 96-29-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Dimethyltindineodecanoate 68928-76-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Hexamethyldisilizane 999-97-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
octamethylcyclotetrasiloxane 556-67-2	Fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:
Do not empty into drains / surface water / ground water.
Dispose of in accordance with local and national regulations.

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

Waste code

08 04 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 or ID number

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

14.2. UN proper shipping name

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

14.3. Transport hazard class(es)

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

14.4. Packing group

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

14.5. Environmental hazards

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

14.6. Special precautions for user

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

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable
VOC content (2010/75/EC)	< 5 %

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.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.
H350 May cause cancer.
H351 Suspected of causing cancer.
H361d Suspected of damaging the unborn child.
H361f Suspected of damaging fertility.
H370 Causes damage to organs.
H372 Causes damage to organs through prolonged or repeated exposure.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

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

Further information:

This Safety Data Sheet has been produced based on Regulation (EC) No 1907/2006 and provides information in accordance with applicable regulation of the European Union (EU) only. In that respect, no statement, warranty, or representation of any kind is given as to compliance with any statutory laws or regulations of any jurisdiction or territory other than the European Union.

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.