

Date of last issue: 27.10.2022	Version 7.1	Print Date 15.03.2023
Revision Date: 15.03.2023		

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

1.1 Product identifier

Trade name : Sikaflex[®]-591

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

Product use : Sealant/adhesive

1.3 Details of the supplier of the safety data sheet

Company name of supplier	:	Sika Limited Watchmead Welwyn Garden City
		Hertfordshire. AL7 1BQ
Telephone	:	+44 (0)1707 394444
Telefax	:	+44 (0)1707 329129
E-mail address of person responsible for the SDS	:	EHS@uk.sika.com

1.4 Emergency telephone number

National Chemical Emergency Centre (NCEC) 24 Hour Emergency Telephone Number +44 870 190 6777

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Additional Labelling

EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not
	breathe spray or mist.

EUH208 Contains 2-octyl-2H-isothiazole-3-one (OIT), Pentamethylpiperidinol-substituted polyester, trimethoxyvinylsilane. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.



Date of last issue: 27.10.2022 Revision Date: 15.03.2023 Version 7.1

Print Date 15.03.2023

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Contains a biocide in order to protect the product. Active ingredient: 2-octyl-2H-isothiazole-3-one (OIT), 26530-20-1. Please use treated articles responsibly.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Components			
Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)
distillates (petroleum), hydrotreat- ed light paraffinic	64742-55-8 265-158-7 01-2119487077-29- XXXX	Asp. Tox. 1; H304 EUH066	>= 2,5 - < 5
Pentamethylpiperidinol- substituted polyester	85631-00-1 287-947-5 01-2120771539-41- XXXX	Acute Tox. 4; H302 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Chronic 4; H413 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1 Acute toxicity esti- mate Acute oral toxicity: 1.900 mg/kg	>= 0,25 - < 1

Date of last issue: 27.10.2022 Revision Date: 15.03.2023	Version 7.	.1	Print Date 15.03.2023
trimethoxyvinylsilane Contains: tetramethyl orthosilicate <= 0,2 %	2768-02-7 220-449-8 01-2119513215-52-	Flam. Liq. 3; H226 Acute Tox. 4; H332 Skin Sens. 1B; H317	< 1
	XXXX	Acute toxicity esti- mate	
		Acute inhalation tox- icity (vapour): 16,8 mg/l	
2-octyl-2H-isothiazole-3-one (OIT)	26530-20-1 247-761-7 01-2120768921-45- XXXX	mg/lAcute Tox. 3; H301Acute Tox. 2; H330Acute Tox. 3; H311Skin Corr. 1; H314Eye Dam. 1; H318Skin Sens. 1A; H317Aquatic Acute 1;H400Aquatic Chronic 1;H410EUH071M-Factor (Acuteaquatic toxicity):100100M-Factor (Chronicaquatic toxicity):100100Specific concentrationlimitSkin Sens. 1A; H317>= 0,0015 %Acute toxicity estimateAcute oral toxicity:125 mg/kgAcute inhalation toxicity:125 mg/kgAcute dermal toxicity:0,27 mg/lAcute dermal toxicity:311 mg/kg	>= 0,0002 - < 0,0015





Date of last issue: 27.10.2022 Revision Date: 15.03.2023	Version 7.1	Print Date 15.03.2023
Revision Date. 15.03.2023		
Substances with a workplace ex	xposure limit :	1
Titanium dioxide (> 10 µm)	13463-67-7	>= 2,5 - < 5
	236-675-5	
	01-2119489379-17-	
	XXXX	

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures					
General advice	:	No hazards which require special first aid measures.			
If inhaled	:	Move to fresh air.			
In case of skin contact	:	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water.			
In case of eye contact	:	Remove contact lenses. Keep eye wide open while rinsing.			
If swallowed	:	Do not induce vomiting without medical advice. Rinse mouth with water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person.			
4.2 Most important symptoms ar	nd e	effects, both acute and delayed			
Symptoms	:	See Section 11 for more detailed information on health effects and symptoms.			
Risks	:	No known significant effects or hazards.			
4.3 Indication of any immediate	me	dical attention and special treatment needed			
Treatment	:	Treat symptomatically.			

SECTION 5: Firefighting measures

5.1 Extinguishing media		
Suitable extinguishing media	:	In case of fire, use water/water spray/water jet/carbon diox- ide/sand/foam/alcohol resistant foam/chemical powder for extinction.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion prod- : No hazardous combustion products are known



evision Date: 15.03.2023		Version 7.1	Print Date 15.03.202
ucts			
5.3 Advice for firefighters			
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing	apparatus.
Further information	:	Standard procedure for chemical fires.	
SECTION 6: Accidental releas	se r	neasures	
6.1 Personal precautions, protect	ctiv	e equipment and emergency procedures	
Personal precautions	:	For personal protection see section 8.	
6.2 Environmental precautions			
Environmental precautions	:	No special environmental precautions required.	
6.3 Methods and material for cor	ntai	nment and cleaning up	
Methods for cleaning up	:	Wipe up with absorbent material (e.g. cloth, fleec	e).
6.4 Reference to other sections		Keep in suitable, closed containers for disposal.	
6.4 Reference to other sections For personal protection see se SECTION 7: Handling and sto		on 8.	
For personal protection see se	oraç	on 8.	
For personal protection see se	oraç	on 8.	g chemical
For personal protection see se SECTION 7: Handling and sto 7.1 Precautions for safe handling	oraç	on 8. ge For personal protection see section 8. No special handling advice required. Follow standard hygiene measures when handlin	g chemical
For personal protection see se SECTION 7: Handling and sto 7.1 Precautions for safe handling Advice on safe handling Advice on protection against	oraç g	on 8. ge For personal protection see section 8. No special handling advice required. Follow standard hygiene measures when handlin products	-
For personal protection see se SECTION 7: Handling and sto 7.1 Precautions for safe handling Advice on safe handling Advice on protection against fire and explosion Hygiene measures	g :	on 8. ge For personal protection see section 8. No special handling advice required. Follow standard hygiene measures when handlin products Normal measures for preventive fire protection. When using do not eat or drink. When using do n	-
For personal protection see se SECTION 7: Handling and sto 7.1 Precautions for safe handling Advice on safe handling Advice on protection against fire and explosion	g :	on 8. ge For personal protection see section 8. No special handling advice required. Follow standard hygiene measures when handlin products Normal measures for preventive fire protection. When using do not eat or drink. When using do n	ot smoke. entilated
For personal protection see se SECTION 7: Handling and sto 7.1 Precautions for safe handling Advice on safe handling Advice on protection against fire and explosion Hygiene measures 7.2 Conditions for safe storage, Requirements for storage	g :	on 8. ge For personal protection see section 8. No special handling advice required. Follow standard hygiene measures when handlin products Normal measures for preventive fire protection. When using do not eat or drink. When using do not luding any incompatibilities Keep container tightly closed in a dry and well-ve	ot smoke. entilated



Date of last issue: 27.10.2022	Version 7.1	Print Date 15.03.2023
Revision Date: 15.03.2023		

7.3 Specific end use(s)

Specific use(s)

: Consult most current local Product Data Sheet prior to any use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters *	Basis *
Titanium dioxide (> 10 μm)	13463-67-7	TWA (inhalable dust)	10 mg/m3	GB EH40
		TWA (Respirable dust)	4 mg/m3	GB EH40

*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters *	Basis *
methanol	67-56-1	TWA	200 ppm 260 mg/m3	2006/15/EC
		ation: Indicative, Ide rough the skin	entifies the possibi	lity of signifi-
		TWA	200 ppm 266 mg/m3	GB EH40
	signed substa	ation: Can be absor nces are those for v tion will lead to syst	which there are co	
		STEL	250 ppm 333 mg/m3	GB EH40

*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

8.2 Exposure controls

Engineering measures

Maintain air concentrations below occupational exposure standards. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection Hand protection	 Safety glasses Chemical-resistant, impervious gloves complying with an approved standard must be worn at all times when handling chemical products. Reference number EN 374. Follow manufacturer specifications.
	Putul rubbar/nitrila rubbar alayaa (> 0.1 mm)

Butyl rubber/nitrile rubber gloves (> 0,1 mm) Recommended: Butyl rubber/nitrile rubber gloves.



Date of last issue: 27.10.2022 Revision Date: 15.03.2023	Version 7.1	Print Date 15.03.2023
Skin and body protection	Protective clothing (e.g. Safety shoes acc long-sleeved working clothing, long trouse and protective boots are additionaly recon and stirring work.	ers). Rubber aprons
Respiratory protection	 In case of inadequate ventilation wear res Respirator selection must be based on kn exposure levels, the hazards of the produc- ing limits of the selected respirator. organic vapor filter (Type A) A1: < 1000 ppm; A2: < 5000 ppm; A3: < 1 Ensure adequate ventilation. This can be exhaust extraction or by general ventilatio ods for determining inhalation exposure). ticular to the mixing / stirring area. In case to keep the concentrations under the occu- limits then respiration protection measures 	own or anticipated ct and the safe work- 0000 ppm achieved by local n. (EN 689 - Meth- This applies in par- this is not sufficent upational exposure
Environmental exposure con	rols	
General advice	: No special environmental precautions req	uired.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state Appearance Colour Odour	:	liquid paste various slight
Melting point/range / Freezing point	:	No data available
Boiling point/boiling range	:	No data available
Flammability (solid, gas)	:	No data available
Upper/lower flammability or o	exp	losive limits
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	ca. 101 °C Method: closed cup
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available



Date of last issue: 27.10.2022 Revision Date: 15.03.2023		Version 7.1	Print Date 15.03.202
рН	:	Not applicable substance/mixture is non-soluble (in water)	
Viscosity			
Viscosity, dynamic	:	Not applicable	
Viscosity, kinematic	:	Not applicable	
Solubility(ies)			
Water solubility	:	insoluble	
Partition coefficient: n- octanol/water	:	No data available	
Vapour pressure	:	0,01 hPa	
Density	:	ca. 1,51 g/cm3 (20 °C)	
Relative vapour density	:	No data available	
Particle characteristics	:	No data available	
9.2 Other information			
No data available			

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous re Hazardous reactions	eactio	ns No hazards to be specially mentioned.
10.4 Conditions to avoid Conditions to avoid	:	No data available
10.5 Incompatible materials Materials to avoid	:	No data available

10.6 Hazardous decomposition products

: methanol



Date of last issue: 27.10.2022	
Revision Date: 15.03.2023	

Version 7.1

Print Date 15.03.2023

SECTION 11: Toxicological information

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

Acute toxicity

Not classified based on available information.

Components:

Pentamethylpiperidinol-su	bsti	tuted polyester:
Acute oral toxicity	:	LD50 Oral (Rat): 1.900 mg/kg
		Acute toxicity estimate: 1.900 mg/kg Method: Calculation method
trimethoxyvinylsilane:		
Acute oral toxicity	:	LD50 Oral (Rat): ca. 7.120 mg/kg
Acute inhalation toxicity	:	LC50: ca. 16,8 mg/l Exposure time: 4 h Test atmosphere: vapour
		Acute toxicity estimate: 16,8 mg/l Test atmosphere: vapour Method: Calculation method
Acute dermal toxicity	:	LD50: 3.540 mg/kg
2-octyl-2H-isothiazole-3-or	ne (C	DIT):
Acute oral toxicity	:	Acute toxicity estimate: 125 mg/kg Method: Acute toxicity estimate according to Regulation (EC) No. 1272/2008
		Acute toxicity estimate: 125 mg/kg Method: Acute toxicity estimate according to Regulation (EC) No. 1272/2008
Acute inhalation toxicity	:	Acute toxicity estimate: 0,27 mg/l Test atmosphere: dust/mist Method: Acute toxicity estimate according to Regulation (EC) No. 1272/2008
		Acute toxicity estimate: 0,27 mg/l Test atmosphere: dust/mist Method: Acute toxicity estimate according to Regulation (EC) No. 1272/2008
Acute dermal toxicity	:	Acute toxicity estimate: 311 mg/kg Method: Acute toxicity estimate according to Regulation (EC)



Date of last issue: 27.10.2022 Revision Date: 15.03.2023 Version 7.1

Print Date 15.03.2023

No. 1272/2008

Acute toxicity estimate: 311 mg/kg Method: Acute toxicity estimate according to Regulation (EC) No. 1272/2008

Skin corrosion/irritation

Not classified based on available information.

Components:

distillates (petroleum), hydrotreated light paraffinic:

Assessment

: Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.



Date of last issue: 27.10.2022	Version 7.1	Print Date 15.03.2023
Revision Date: 15.03.2023		

SECTION 12: Ecological information

12.1 Toxicity

Components:

Pentamethylpiperidinol-substituted polyester:

M-Factor (Acute aquatic tox- : 1 icity)

M-Factor (Chronic aquatic : 1 toxicity)

2-octyl-2H-isothiazole-3-one (OIT):

M-Factor (Acute aquatic tox- icity)	:	100
		100

M-Factor (Chronic aquatic	:	100
toxicity)		100

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment

: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Endocrine disrupting properties

Product:

Assessment	 The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
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Date of last issue: 27.10.2022	Version 7.1	Print Date 15.03.2023
Revision Date: 15.03.2023		

12.7 Other adverse effects

Product:

Additional ecological infor- : There is no data available for this product. mation

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	 The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
European Waste Catalogue	: 08 04 09* waste adhesives and sealants containing organic solvents or other dangerous substances

SECTION 14: Transport information

14.1 UN number or ID number

ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good
14.2 UN proper shipping name		
ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good
14.3 Transport hazard class(es)		
ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Not regulated as a dangerous good
14.4 Packing group		



Date of last issue: 27.10.2022 Revision Date: 15.03.2023		Version 7.1	Print Date 15.03.2023
ADR	:	Not regulated as a dangerous good	
IMDG	:	Not regulated as a dangerous good	
IATA (Cargo)	:	Not regulated as a dangerous good	
IATA (Passenger)	:	Not regulated as a dangerous good	
14.5 Environmental hazards Not regulated as a dangerous good			
14.6 Special precautions for user Not applicable			
14.7 Maritime transport in bulk according to IMO instruments			

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17)	: Not applicable		
UK REACH Candidate list of substances of very concern (SVHC) for Authorisation	high : Not applicable		
The Persistent Organic Pollutants Regulations (Regulation (EU) 2019/1021 as amended for Gre ain)			
International Chemical Weapons Convention (C Schedules of Toxic Chemicals and Precursors	WC) : Not applicable		
Regulation (EC) No 1005/2009 on substances th plete the ozone layer	at de- : Not applicable		
UK REACH List of substances subject to author (Annex XIV)	sation : Not applicable		
GB Export and import of hazardous chemicals - Informed Consent (PIC) Regulation	Prior : Not applicable		
Control of Major Accident Hazards Regulations 2015 (COMAH)	Not applicable		
Volatile organic compounds : Law on the in	centive tax for volatile organic compounds		
•	/olatile organic compounds (VOC) content: 0% w/w no VOC duties		
Directive 2010)/75/EU of 24 November 2010 on industrial		



Date of last issue: 27.10.2022 Revision Date: 15.03.2023	Version 7.1	Print Date 15.03.2023	
	emissions (integrated pollution prevention and control) Volatile organic compounds (VOC) content: 0% w/w		
If other regulatory information applies that is not already provided elsewhere in the Safety Data Sheet, then it is described in this subsection.			
Health, safety and environ- mental regulation/legislation	Environmental Protection Act 1990 & Subsidiary Health and Safety at Work Act 1974 & Subsidiary	0	

mental regulation/legislation specific for the substance or mixture:

Health and Safety at Work Act 1990 & Subsidiary Regulations Control of Substances Hazardous to Health Regulations (COSHH) May be subject to the Control of Major Accident Hazards Regulations (COMAH), and amendments.

Other regulations:

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

Full text of H-Statements

H226	:	Flammable liquid and vapour.	
H301	:	Toxic if swallowed.	
H302	:	Harmful if swallowed.	
H304	:	May be fatal if swallowed and enters airways.	
H311	:	Toxic in contact with skin.	
H314	:	Causes severe skin burns and eye damage.	
H317	:	May cause an allergic skin reaction.	
H318	:	Causes serious eye damage.	
H319	:	Causes serious eye irritation.	
H330	:	Fatal if inhaled.	
H332	:	Harmful if inhaled.	
H400	:	Very toxic to aquatic life.	
H410	:	Very toxic to aquatic life with long lasting effects.	
H413	:	May cause long lasting harmful effects to aquatic life.	
Full text of other abbreviations			
Acute Tox.	:	Acute toxicity	
Aquatic Acute	:	Short-term (acute) aquatic hazard	
Aquatic Chronic	:	Long-term (chronic) aquatic hazard	
Asp. Tox.	:	Aspiration hazard	
Eye Dam.	:	Serious eye damage	
Eye Irrit.	:	Eye irritation	
Flam. Liq.	:	Flammable liquids	
Skin Corr.	:	Skin corrosion	
Skin Sens.	:	Skin sensitisation	
2006/15/EC		Europe. Indicative occupational exposure limit values	
	·	UK. EH40 WEL - Workplace Exposure Limits	



Date of last issue: 27.10.2022 Revision Date: 15.03.2023		Version 7.1	Print Date 15.03.2023
2006/15/EC / TWA	:	Limit Value - eight hours	
GB EH40 / TWA	:	Long-term exposure limit (8-hour TWA reference	e period)
GB EH40 / STEL	:	Short-term exposure limit (15-minute reference	
ADR	:	European Agreement concerning the International Carriage of	
		Dangerous Goods by Road	-
CAS	:	Chemical Abstracts Service	
DNEL	:	Derived no-effect level	
EC50	:	Half maximal effective concentration	
GHS	:	Globally Harmonized System	
IATA	:	International Air Transport Association	
IMDG	:	International Maritime Code for Dangerous Goo	
LD50	:	Median lethal dosis (the amount of a material, gi once, which causes the death of 50% (one half) test animals)	
LC50	:	Median lethal concentration (concentrations of the air that kills 50% of the test animals during the operiod)	
MARPOL	:	International Convention for the Prevention of P Ships, 1973 as modified by the Protocol of 1978	
OEL	:	Occupational Exposure Limit	
PBT	:	Persistent, bioaccumulative and toxic	
PNEC	:	Predicted no effect concentration	
REACH	:	Regulation (EC) No 1907/2006 of the European and of the Council of 18 December 2006 concer istration, Evaluation, Authorisation and Restriction cals (REACH), establishing a European Chemic	ning the Reg- on of Chemi-
SVHC vPvB	:	Substances of Very High Concern Very persistent and very bioaccumulative	

Further information

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.

Changes as compared to previous version !

GB / EN