

SAFETY DATA SHEET

According to 13 December 2014, No:29204, "Ministry of Environment and Urbanization; Regulation on Safety data sheets regarding hazardous substances and mixtures".



Sikaflex®-291i

Revision Date 12.06.2019

Version 1.0

Print Date 12.06.2019

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

1.1 Product identifier

Trade name : Sikaflex®-291i

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 Yapi Kimyasallari A.S.
İstanbul Deri Organize Sanayi Bölgesi 2. yol
J-7 Parsel / Aydınlı Orhanlı Mevkii
34944 Tuzla / İstanbul
Turkey

Telephone : +90 216 581 06 00

Telefax : +90 216 581 06 99

E-mail address of person responsible for the SDS : bilgi@tr.sika.com

1.4 Emergency telephone number

+90 216 581 06 00 / 1260

Ulusal Zehir Danışma Merkezi (UZEM): 114

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Type of product : Mixture

Classification T.R. SEA No 28848

Skin sensitisation, Category 1

H317: May cause an allergic skin reaction.

2.2 Label elements

Labelling T.R. SEA No 28848

Hazard pictograms :



Signal word : Warning

Hazard statements : H317 May cause an allergic skin reaction.

Precautionary statements : P101 If medical advice is needed, have product container or label at hand.

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P102	Keep out of reach of children.
Prevention:	
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves.
Response:	
P302 + P352	IF ON SKIN: Wash with plenty of water.
Disposal:	
P501	Dispose of contents/container in accordance with local regulation.

Hazardous components which must be listed on the label:

Hardener LH (1,6-Hexanedialdimine)

Reaction product of Hexamethylene diisocyanate, oligomers with Mercaptopropyltrimethoxysilane

Pentamethyl piperidylsebacate

Additional Labelling:

EUH204 Contains isocyanates. 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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical name	CAS-No. EC-No.	T.R. SEA No 28848	Concentration (% w/w)
<** Status of value assignment not permitted: 000000131725 ; SAP_EHS_1012_004 ; 0391 **> :			
Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-	77703-56-1 416-600-4	Aquatic Chronic4; H413	>= 2,5 - < 5
Hardener LH (1,6-Hexanedialdimine)	613222-52-9 479-930-8	Eye Dam.1; H318 Skin Sens.1B; H317 STOT SE3; H335	< 1
Reaction product of Hexamethylene diisocyanate, oligomers with Mercaptopropyltrimethoxysilane	192526-20-8 924-669-1	Skin Sens.1A; H317 Aquatic Chronic4; H413	>= 0,1 - < 1
Pentamethyl piperidylsebacate	1065336-91-5	Skin Sens.1A; H317	>= 0,1 - < 0,25

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Contains: bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Aquatic Acute1; H400 Aquatic Chronic1; H410	
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SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- 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 and effects, both acute and delayed

- Symptoms : Allergic reactions
See Section 11 for more detailed information on health effects and symptoms.
- Risks : sensitising effects
May cause an allergic skin reaction.

4.3 Indication of any immediate medical 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-

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ide/sand/foam/alcohol resistant foam/chemical powder for extinction.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products : No hazardous combustion products are known

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 release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Deny access to unprotected persons.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours or spray mist.
Avoid exceeding the given occupational exposure limits (see section 8).
Do not get in eyes, on skin, or on clothing.
For personal protection see section 8.
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

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Smoking, eating and drinking should be prohibited in the application area.
Follow standard hygiene measures when handling chemical products

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Store in accordance with local regulations.

Other data : No decomposition if stored and applied as directed.

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

<** Status of value assignment not permitted: 000000131725 ; SAP_EHS_1012_006 ; 0039 **>

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Reaction product of Hexamethylene diisocyanate, oligomers with Mercaptopropyltrimethoxysilane	Workers	Inhalation	Long-term systemic effects	1,7 mg/m ³
	Workers	Dermal	Long-term systemic effects	4,7 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0,3 mg/m ³
	Consumers	Dermal	Long-term systemic effects	1,7 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
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Reaction product of Hexamethylene diisocyanate, oligomers with Mercaptopropyltrimethoxysilane	Fresh water	0,1 mg/l
	Intermittent use/release	1 mg/l
	Marine water	0,01 mg/l
	Intermittent use/release	1 mg/l
	Fresh water sediment	23,28 mg/kg
	Marine sediment	2,33 mg/kg
	Sewage treatment plant	100 mg/l
	Soil	4,58 mg/kg

8.2 Exposure controls

Personal protective equipment

- Eye protection : Safety glasses with side-shields conforming to EN166
Eye wash bottle with pure water
- Hand protection : 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.
- Suitable for short time use or protection against splashes:
Butyl rubber/nitrile rubber gloves (0,4 mm)
Contaminated gloves should be removed.
Suitable for permanent exposure:
Viton gloves (0.4 mm),
breakthrough time >30 min.
- Skin and body protection : Protective clothing (e.g. Safety shoes acc. to EN ISO 20345, long-sleeved working clothing, long trousers). Rubber aprons and protective boots are additionally recommended for mixing and stirring work.
- Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
organic vapor filter (Type A)
A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm
Ensure adequate ventilation. This can be achieved by local exhaust extraction or by general ventilation. (EN 689 - Methods for determining inhalation exposure). This applies in particular to the mixing / stirring area. In case this is not sufficient to keep the concentrations under the occupational exposure limits then respiration protection measures must be used.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: paste
Colour	: various
Odour	: very faint
Odour Threshold	: No data available
Flash point	: > 150 °C
Autoignition temperature	: No data available
Decomposition temperature	: No data available
Lower explosion limit (Vol-%)	: No data available
Upper explosion limit (Vol-%)	: No data available
Flammability	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
pH	: Not applicable
Melting point/range / Freezing point	: No data available
Boiling point/boiling range	: No data available
Vapour pressure	: 0,01 hPa
Density	: ca.1,38 g/cm ³ at 20 °C
Water solubility	: insoluble
Partition coefficient: n-octanol/water	: No data available
Viscosity, dynamic	: Not applicable
Viscosity, kinematic	: Not applicable
Relative vapour density	: No data available
Evaporation rate	: No data available

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9.2 Other information

No data available

SECTION 10: Stability and reactivity

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 reactions

Hazardous reactions : Stable under recommended storage conditions.

10.4 Conditions to avoid

Conditions to avoid : Avoid moisture.

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Components:

Reaction product of Hexamethylene diisocyanate, oligomers with Mercaptopropyltrimethoxysilane:

Acute oral toxicity : LD50 Oral (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 423

Acute dermal toxicity : LD50 Dermal (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402

Pentamethyl piperidylsebacate:

Acute oral toxicity : LD50 Oral (Rat): 3.230 mg/kg

Skin corrosion/irritation

Not classified based on available information.

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Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.

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.

SECTION 12: Ecological information

12.1 Toxicity

Components:

Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-:

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 250 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (Raphidocelis subcapitata (freshwater green alga)): > 100 mg/l
Exposure time: 72 h

Ecotoxicology Assessment
Short-term (acute) aquatic hazard :

Long-term (chronic) aquatic hazard :

Toxicity Data on Soil :

Other organisms relevant to :

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the environment

Reaction product of Hexamethylene diisocyanate, oligomers with Mercaptopropyltrimethoxysilane:

- Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
- Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Pentamethyl piperidylsebacate:

- Toxicity to fish : LC50 (Fish): 0,97 mg/l
Exposure time: 96 h

12.2 Persistence and degradability

Components:

Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-:

Impact on Sewage Treatment :
ment

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 Other adverse effects

Product:

Additional ecological information : There is no data available for this product.

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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
- Contaminated packaging : 15 01 10* packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

14.1 UN number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

No data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

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SECTION 15: Regulatory information

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

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors	: Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	: None of the components are listed (= > 0.1 %).
REACH - List of substances subject to authorisation (Annex XIV)	: Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	: Not applicable
Regulation (EC) No 850/2004 on persistent organic pollutants	: Not applicable
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	: Not applicable
< ** Status of value assignment not permitted: 000000131725 ; SAP_EHS_1023_051 ; 0049 ** >	: < ** Status of value assignment not permitted: 000000131725 ; SAP_EHS_1023_051 ; 0049 ** > < ** Status of value assignment not permitted: 000000131725 ; SAP_EHS_1023_051 ; 0049 ** >
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	: Conditions of restriction for the following entries should be considered: (3) 1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich (52)
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable	
Other regulations	: < ** Status of value assignment not permitted: 000000131725 ; SAP_EHS_1023_020 ; 0047 ** >

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SECTION 16: Other information

Full text of H-Statements

H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H335	: May cause respiratory irritation.
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

Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Eye Dam.	: Serious eye damage
Skin Sens.	: Skin sensitisation
STOT SE	: Specific target organ toxicity - single exposure
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	: Half maximal effective concentration
IATA	: International Air Transport Association
IMDG	: International Maritime Code for Dangerous Goods
LD50	: Median lethal dose (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals)
LC50	: Median lethal concentration (concentrations of the chemical in air that kills 50% of the test animals during the observation period)
MARPOL	: International Convention for the Prevention of Pollution from 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 Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency
SVHC	: Substances of Very High Concern
vPvB	: Very persistent and very bioaccumulative

Classification of the mixture:

Skin Sens. 1 H317

Classification procedure:

Calculation method

SDS Author

Atilim Yetiskin

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yetiskin.atilim@tr.sika.com

+902165810647

Certification number; gbf01.13.06

certification date ; 24.03.2018

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.

TR / EN