

SAFETY DATA SHEET

Sikaflex-221



Version
5.0

Revision Date:
2022/09/29

SDS Number:
000000601552

Date of last issue: 2021/07/11
Date of first issue: 2015/12/10

Section 1: Identification

Product name : Sikaflex-221

Manufacturer or supplier's details

Company : Sika (NZ) Ltd.
85-91 Patiki Road
Avondale
Auckland AKL 1026

Telephone : +64 9 820 2900

Emergency telephone number : 0800 734 607

E-mail address : info@nz.sika.com

Telefax : +64 9 828 4091

Recommended use of the chemical and restrictions on use

Product use : Sealant/adhesive

Section 2: Hazard identification

GHS Classification

Flammable liquids : Category 4

Respiratory sensitisation : Category 1

Skin sensitisation : Category 1

Carcinogenicity : Category 2

Specific target organ toxicity -
repeated exposure
(Inhalation) : Category 2

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H227 Combustible liquid.
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure if inhaled.

Precautionary statements

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe mist or vapours.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
P284 Wear respiratory protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 Store in a well-ventilated place.
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

None known.

Section 3: Composition/information on ingredients

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-	77703-56-1	>= 2.5 -< 10

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xylene	1330-20-7	>= 1 -< 2.5
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	64742-82-1	>= 1 -< 2.5
4,4'-methylenediphenyl diisocyanate	101-68-8	>= 0.1 -< 1

Section 4: 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 : Clean mouth with water and drink afterwards plenty of water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : No known significant effects or hazards.
See Section 11 for more detailed information on health effects and symptoms.
May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure if inhaled.
- Notes to physician : Treat symptomatically.

Section 5: Fire-fighting measures

- Suitable extinguishing media : Carbon dioxide (CO₂)
- Unsuitable extinguishing media : Water
- Hazardous combustion products : No hazardous combustion products are known
- Specific extinguishing methods : Standard procedure for chemical fires.

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Special protective equipment : In the event of fire, wear self-contained breathing apparatus for firefighters

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Deny access to unprotected persons.

Environmental precautions : Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and 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.

Section 7: Handling and storage

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

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

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.

Conditions for safe storage : Store in original container.
Keep in a well-ventilated place.
Observe label precautions.
Store in accordance with local regulations.

Section 8: Exposure controls/personal protection

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
xylene	1330-20-7	WES-TWA	50 ppm	NZ OEL

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			217 mg/m ³	
Hydrocarbons, C9-C12, n-alkanes, isoalkanes, cyclics, aromatics (2-25%)	64742-82-1	WES-TWA	300 ppm 890 mg/m ³	NZ OEL
		WES-STEL	500 ppm 1,480 mg/m ³	NZ OEL
4,4'-methylenediphenyl diisocyanate	101-68-8	WES-TWA	0.02 mg/m ³ (NCO)	NZ OEL
Further information: Skin sensitiser, Respiratory sensitiser				
		WES-STEL	0.07 mg/m ³ (NCO)	NZ OEL

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
xylene	1330-20-7	Methylhippuric acid	Urine	End of shift	1.5 g/l	NZ BEI
4,4'-methylenediphenyl diisocyanate	101-68-8	4,4-Diaminodiphenyl	Urine	End of exposure or end of shift	10 µg/g creatinine	NZ BEI

Personal protective equipment

- Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.
- Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.
- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Section 9: Physical and chemical properties

- Appearance : paste
- Colour : various
- Odour : characteristic

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Odour Threshold	:	No data available
pH	:	Not applicable
Melting point/range / Freezing point	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	ca. 64.6 °C (148.3 °F) (Method: closed cup)
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	0.01 hPa
Relative vapour density	:	No data available
Density	:	1.26 g/cm ³ (23 °C (73 °F))
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	ca. > 20.5 mm ² /s (40 °C (104 °F))
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Volatile organic compounds (VOC) content	:	51.6 g/l

Section 10: Stability and reactivity

Reactivity : No dangerous reaction known under conditions of normal use.

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Chemical stability : The product is chemically stable.

Possibility of hazardous reactions : No hazards to be specially mentioned.

Conditions to avoid : No data available

Incompatible materials : No data available

Section 11: Toxicological information

Acute toxicity

Not classified based on available information.

Components:

xylene:

Acute oral toxicity : LD50 Oral (Rat): 3,523 mg/kg

4,4'-methylenediphenyl diisocyanate:

Acute oral toxicity : LD50 Oral (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50: 1.5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Expert judgement

Skin corrosion/irritation

Not classified based on available information.

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

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Chronic toxicity

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

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Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure if inhaled.

Aspiration toxicity

Not classified based on available information.

Section 12: Ecological information

Ecotoxicity

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 : EC50 (Daphnia magna (Water flea)): > 100 mg/l
aquatic invertebrates Exposure time: 48 h

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

xylene:

Toxicity to fish (Chronic tox- : NOEC (Oncorhynchus mykiss (rainbow trout)): > 1.3 mg/l
icity) Exposure time: 56 d

Toxicity to daphnia and other : NOEC (Daphnia (water flea)): 1.17 mg/l
aquatic invertebrates (Chron- Exposure time: 7 d
ic toxicity)

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

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

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Section 13: Disposal considerations

Disposal methods

- Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
- Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.
-

Section 14: Transport information

International Regulations

IATA-DGR

- UN/ID No. : Not applicable
Proper shipping name : Not applicable
Class : Not applicable
Subsidiary risk : Not applicable
Packing group : Not applicable
Labels : Not applicable
Packing instruction (cargo aircraft) : Not applicable
Packing instruction (passenger aircraft) : Not applicable

IMDG-Code

- UN number : Not applicable
Proper shipping name : Not applicable
Class : Not applicable
Subsidiary risk : Not applicable
Packing group : Not applicable
Labels : Not applicable
EmS Code : Not applicable
Marine pollutant : Not applicable

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

Not applicable for product as supplied.

National Regulations

NZS 5433

- UN number : Not applicable
Proper shipping name : Not applicable
Class : Not applicable
Subsidiary risk : Not applicable
Packing group : Not applicable
Labels : Not applicable
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Hazchem Code : Not applicable

Special precautions for user

Not applicable

Section 15: Regulatory information

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

International Chemical Weapons Convention (CWC) : Not applicable
Schedules of Toxic Chemicals and Precursors

HSNO Approval Number

HSR002680

HSW Controls

Certified handler certificate not required.
Tracking hazardous substance not required.
Refer to the Health and Safety at Work (Hazardous Substances) Regulations 2017, for further information.

The components of this product are reported in the following inventories:

NZIoC : On the inventory, or in compliance with the inventory

Section 16: Other information

Full text of other abbreviations

NZ BEI : New Zealand. Biological Exposure Indices
NZ OEL : New Zealand. Workplace Exposure Standards for Atmospheric Contaminants
NZ OEL / WES-TWA : Workplace Exposure Standard - Time Weighted average
NZ OEL / WES-STEL : Workplace Exposure Standard - Short-Term Exposure Limit
ADG : Australian Dangerous Goods Code.
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 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

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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

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 !

NZ / EN