

# SAFETY DATA SHEET

## Sikaflex®-221



Version  
1.0

Revision Date:  
24.11.2022

SDS Number:  
000000601552

Date of last issue: -  
Date of first issue: 24.11.2022

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### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Sikaflex®-221

#### Manufacturer or supplier's details

Company : **Sika (Singapore) Pte Ltd.**

28 Tuas South Ave 8  
637648 Singapore

Telephone : +65 6861 0632

Emergency telephone number : +65 6861 0632

E-mail address : -

Telefax : +65 6862 3915

#### Recommended use of the chemical and restrictions on use

Product use : Sealant/adhesive

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### 2. HAZARDS IDENTIFICATION

#### GHS Classification

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

#### GHS label elements

Hazard pictograms :



Signal word : Warning

Hazard statements : H373 May cause damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.

Precautionary statements :

#### Prevention:

P260 Do not breathe mist or vapours.

#### Response:

P314 Get medical advice/ attention if you feel unwell.

#### Disposal:

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

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### Other hazards which do not result in classification

None known.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Components

Chemical name	CAS-No.	Concentration (% w/w)
xylene	1330-20-7	>= 1 -< 10
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

### 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 damage to organs through prolonged or repeated exposure if inhaled.
- Notes to physician : Treat symptomatically.

### 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>)
- Unsuitable extinguishing : Water

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media

Hazardous combustion products : No hazardous combustion products are known

Specific extinguishing methods : Standard procedure for chemical fires.

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

### 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.

### 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

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

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of	Control parameters / Permissible	Basis
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		exposure)	concentration	
xylene	1330-20-7	PEL (long term)	100 ppm 434 mg/m <sup>3</sup>	SG OEL
		PEL (short term)	150 ppm 651 mg/m <sup>3</sup>	SG OEL
		TWA	20 ppm	ACGIH
4,4'-methylenediphenyl diisocyanate	101-68-8	PEL (long term)	0.005 ppm 0.051 mg/m <sup>3</sup>	SG OEL
		TWA	0.005 ppm	ACGIH

### Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
xylene	1330-20-7	methylhippuric acid	Urine		1.5 g/g creatinine	SG BTLV
		Methylhippuric acids	Urine	End of shift (As soon as possible after exposure ceases)	1.5 g/g creatinine	ACGIH 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.
- 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance	:	paste
Colour	:	various
Odour	:	characteristic
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 <sup>3</sup> (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 <sup>2</sup> /s ( 40 °C (104 °F))
Explosive properties	:	No data available
Oxidizing properties	:	No data available

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### 10. STABILITY AND REACTIVITY

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

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.

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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 (Central nervous system) through prolonged or repeated exposure if inhaled.

### Aspiration toxicity

Not classified based on available information.

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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

##### **xylene:**

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

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

### Persistence and degradability

No data available

### Bioaccumulative potential

No data available

### Mobility in soil

No data available

### Other adverse effects

#### Product:

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

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## 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.

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Do not burn, or use a cutting torch on, the empty drum.

### 14. TRANSPORT INFORMATION

#### International Regulations

##### UNRTDG

UN number or ID number : Not applicable  
Proper shipping name : Not applicable  
Class : Not applicable  
Subsidiary risk : Not applicable  
Packing group : Not applicable  
Labels : Not applicable

##### 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 or ID 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.

#### Special precautions for user

Not applicable

### 15. REGULATORY INFORMATION

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

**Workplace Safety and Health Act and Workplace Safety and Health (General Provisions) Regulations: This product is subjected to the SDS, labelling, PEL and other requirements in the Act/Regulations.**

Environmental Protection and Management Act and : Isocyanates  
Environmental Protection and Management (Hazardous Substances) Regulations



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### 16. OTHER INFORMATION

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#### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)  
SG BTLV : Singapore. Biological Threshold Limit Values  
SG OEL : Singapore. Workplace Safety and Health (General Provisions) Regulations - First Schedule Permissible Exposure Limits of Toxic Substances.

ACGIH / TWA : 8-hour, time-weighted average  
SG OEL / PEL (long term) : Permissible Exposure Level (PEL) Long Term  
SG OEL / PEL (short term) : Permissible Exposure Level (PEL) Short Term  
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  
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.  
SG / EN