According to SANS 10234, SANS 10228, SANS 11014 and Hazardous Chemical Substance Regs. (GNR. 1179 of 25 August 1995)



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

1.1 Product identifier

Trade name : Sikalastic 8440 (A)

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

Product use : Liquid applied membranes

1.3 Details of the supplier of the safety data sheet

Company name of supplier : Sika South Africa (Pty) Ltd

9 Hocking Place Westmead 3608 Pinetown South Africa

Telephone : +27 (0)31 792 6500
Telefax : +27 (0)31 700 1760
E-mail address of person : headoffice@za.sika.com

responsible for the SDS

1.4 Emergency telephone number

+27 82 490 9409

#### **SECTION 2: Hazards identification**

Type of product : Mixture

#### 2.1 Classification of the substance or mixture

Specific target organ toxicity - repeated

### Classification (SANS 10234)

Acute toxicity, Category 4 H332: Harmful if inhaled. Skin irritation, Category 2 H315: Causes skin irritation.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Respiratory sensitisation, Category 1 H334: May cause allergy or asthma symptoms or

breathing difficulties if inhaled.

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction. Carcinogenicity, Category 2 H351: Suspected of causing cancer.

Specific target organ toxicity - single exposure, Category 3, Respiratory system

exposure, Category 2

2.2 Label elements

Labelling (SANS 10234)

H373: May cause damage to organs through prolonged or repeated exposure if inhaled.

According to SANS 10234, SANS 10228, SANS 11014 and Hazardous Chemical Substance Regs. (GNR. 1179 of 25 August 1995)



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Hazard pictograms :





Signal word : Danger

Hazard statements : H315 Causes skin irritation.

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or

breathing difficulties if inhaled.

H335 May cause respiratory irritation. H351 Suspected of causing cancer.

H373 May cause damage to organs through pro-

longed or repeated exposure if inhaled.

Precautionary statements : Prevention:

P201 Obtain special instructions before use.
P260 Do not breathe dust/ fume/ gas/ mist/ va-

pours/ spray.

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ protective clothing/

eye protection/ face protection.

Response:

P304 + P340 + P312 IF INHALED: Remove person to fresh

air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel un-

well.

P308 + P313 IF exposed or concerned: Get medical ad-

vice/ attention.

Hazardous components which must be listed on the label:

Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-, polymer with 1,1'-methylenebis[isocyanatobenzene]

4,4'-methylenediphenyl diisocyanate

4,4'-Methylenediphenyl diisocyanate, oligomers

#### 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.	Classification	Concentration
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According to SANS 10234, SANS 10228, SANS 11014 and Hazardous Chemical Substance Regs. (GNR. 1179 of 25 August 1995)



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	EC-No. Registration number	(SANS 10234)	(% w/w)
Poly[oxy(methyl-1,2-ethanediyl)], .alphahydroomegahydroxy-, pol- ymer with 1,1'- methylenebis[isocyanatobenzene]	39420-98-9	Acute Tox.4; H332 Skin Irrit.2; H315 Eye Irrit.2; H319 Resp. Sens.1; H334 Skin Sens.1; H317 Carc.2; H351 STOT SE3; H335 STOT RE2; H373	>= 40 - < 60
4,4'-methylenediphenyl diisocyanate	101-68-8 202-966-0 01-2119457014-47- XXXX	Acute Tox.4; H332 Eye Irrit.2; H319 STOT SE3; H335 Skin Irrit.2; H315 Resp. Sens.1; H334 Skin Sens.1; H317 Carc.2; H351 STOT RE2; H373	>= 25 - < 40
4,4`-Methylenediphenyl diisocyanate, oligomers	25686-28-6 01-2119457013-49- XXXX	Acute Tox.4; H332 Skin Irrit.2; H315 Eye Irrit.2; H319 Resp. Sens.1; H334 Skin Sens.1; H317 Carc.2; H351 STOT SE3; H335 STOT RE2; H373	>= 25 - < 40
tributyl phosphate	126-73-8 204-800-2 01-2119492859-14- XXXX	Carc.2; H351 Acute Tox.4; H302 Skin Irrit.2; H315	< 1

For explanation of abbreviations see section 16.

### **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.

According to SANS 10234, SANS 10228, SANS 11014 and Hazardous Chemical Substance Regs. (GNR. 1179 of 25 August 1995)



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If symptoms persist, call a physician.

In case of eye contact : Immediately flush eye(s) with plenty of water.

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 : Asthmatic appearance

Cough

Respiratory disorder Allergic reactions Excessive lachrymation

Erythema Headache Dermatitis

See Section 11 for more detailed information on health effects

and symptoms.

Risks : irritant effects

sensitising effects
Causes skin irritation.

May cause an allergic skin reaction. Causes serious eye irritation.

Harmful if inhaled.

May cause allergy or asthma symptoms or breathing difficul-

ties if inhaled.

May cause respiratory irritation. Suspected of causing cancer.

May cause damage to organs through prolonged or repeated

exposure if inhaled.

### 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-

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

extinction.

According to SANS 10234, SANS 10228, SANS 11014 and Hazardous Chemical Substance Regs. (GNR. 1179 of 25 August 1995)



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### 5.2 Special hazards arising from the substance or mixture

Hazardous combustion prod- : No hazardous combustion products are known

ucts

### 5.3 Advice for firefighters

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

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.

If the product contaminates rivers and lakes or drains inform

respective authorities.

### 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 Avoid formation of aerosol.

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.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

Provide sufficient air exchange and/or exhaust in work rooms. Follow standard hygiene measures when handling chemical

According to SANS 10234, SANS 10228, SANS 11014 and Hazardous Chemical Substance Regs. (GNR. 1179 of 25 August 1995)



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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. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in accord-

ance with local regulations.

Further information on stor-

age stability

No decomposition if stored and applied as directed.

7.3 Specific end use(s)

#### **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

### **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
4,4'-	101-68-8	TWA OEL-RL	0,02 mg/m3	ZA OEL
methylenediphenyl			_	
diisocyanate				
	Further information: Sensitisers that may cause sensitisation by inhalation,			
	Recommended Limit			
		STEL OEL-RL	0,07 mg/m3	ZA OEL
4,4`-	25686-28-6	TWA OEL-RL	0,02 mg/m3	ZA OEL
Methylenediphenyl				
diisocyanate, oli-				
gomers				
	Further information: Sensitisers that may cause sensitisation by inhalation,			
	Recommended Limit			
		STEL OEL-RL	0,07 mg/m3	ZA OEL
tributyl phosphate	126-73-8	TWA OEL-RL	5 mg/m3	ZA OEL
	Further information: Recommended Limit			
		STEL OEL-RL	5 mg/m3	ZA OEL

#### 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 ap-

Country ZA 100000020497

6/14

According to SANS 10234, SANS 10228, SANS 11014 and Hazardous Chemical Substance Regs. (GNR. 1179 of 25 August 1995)



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proved 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 (> 0,1 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 : In case of inadequate ventilation wear respiratory protection.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe work-

ing limits of the selected respirator.

Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk as-

sessment indicates this is necessary.

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 sufficent to keep the concentrations under the occupational exposure limits then respiration protection measures must be used. Ensure adequate ventilation, especially in confined areas.

### **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

Appearance : liquid
Colour : yellow
Odour : characteristic
Odour Threshold : No data available

pH : No data available

Melting point/range / Freezing :

point

No data available

Boiling point/boiling range : No data available

Flash point : > 200 °C

Method: closed cup

According to SANS 10234, SANS 10228, SANS 11014 and Hazardous Chemical Substance Regs. (GNR. 1179 of 25 August 1995)



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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 : No data available

Solubility(ies)

Water solubility : No data available

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 : ca. 800 mPa.s (40 °C)

Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

#### 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 : No hazards to be specially mentioned.

According to SANS 10234, SANS 10228, SANS 11014 and Hazardous Chemical Substance Regs. (GNR. 1179 of 25 August 1995)



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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

No decomposition if stored and applied as directed.

### **SECTION 11: Toxicological information**

### 11.1 Information on toxicological effects

### **Acute toxicity**

Harmful if inhaled.

#### **Components:**

### 4.4'-methylenediphenyl diisocyanate:

Acute oral toxicity : LD50 Oral (Rat): > 4.700 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

4,4'-Methylenediphenyl diisocyanate, oligomers:

Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg

Acute inhalation toxicity : LC50: 1,5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Expert judgement

Acute dermal toxicity : LD50 Dermal (Rabbit): > 9.400 mg/kg

tributyl phosphate:

Acute oral toxicity : LD50 Oral (Rat): 1.553 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 3.100 mg/kg

#### Skin corrosion/irritation

Causes skin irritation.

### Serious eye damage/eye irritation

Causes serious eye irritation.

According to SANS 10234, SANS 10228, SANS 11014 and Hazardous Chemical Substance Regs. (GNR. 1179 of 25 August 1995)



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### 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.

#### Germ cell mutagenicity

Not classified based on available information.

#### Carcinogenicity

Suspected of causing cancer.

### Reproductive toxicity

Not classified based on available information.

#### STOT - single exposure

May cause respiratory irritation.

#### 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**

### 12.1 Toxicity

#### **Components:**

### tributyl phosphate:

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 1,8 mg/l

aquatic invertebrates Exposure time: 48 h

#### 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.

According to SANS 10234, SANS 10228, SANS 11014 and Hazardous Chemical Substance Regs. (GNR. 1179 of 25 August 1995)



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#### 12.6 Other adverse effects

#### **Product:**

Endocrine disrupting poten-

tial

: 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.

Additional ecological infor-

mation

: There is no data available for this product.

### **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.

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

According to SANS 10234, SANS 10228, SANS 11014 and Hazardous Chemical Substance Regs. (GNR. 1179 of 25 August 1995)



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### 14.6 Special precautions for user

Not applicable

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

### **SECTION 15: Regulatory information**

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

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: Number on list 3

4,4'-methylenediphenyl diisocyanate (Number on list 56)

4,4`-Methylenediphenyl diisocyanate, oligomers (Number on list 56)

None of the components are listed

Not applicable

(=> 0.1 %).

Not applicable

Not applicable

Not applicable

Not applicable

International Chemical Weapons Convention (CWC)

Schedules of Toxic Chemicals and Precursors

REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

REACH - List of substances subject to authorisation

(Annex XIV)

Regulation (EC) No 1005/2009 on substances that de-

plete the ozone layer

Regulation (EU) 2019/1021 on persistent organic pollu-

tants (recast)

Regulation (EC) No 649/2012 of the European Parlia-

ment and the Council concerning the export and import

of dangerous chemicals

REACH Information: All substances contained in our Products are

- registered by our upstream suppliers, and/or

- registered by us, and/or

- excluded from the regulation, and/or

- exempted from the registration.

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

Volatile organic compounds : Law on the incentive tax for volatile organic compounds

(VOCV) no VOC duties

Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)

According to SANS 10234, SANS 10228, SANS 11014 and Hazardous Chemical Substance Regs. (GNR. 1179 of 25 August 1995)



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### Not applicable

#### 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**

H302 : Harmful if swallowed. H315 : Causes skin irritation.

H317 : May cause an allergic skin reaction. H319 : Causes serious eye irritation.

H332 : Harmful if inhaled.

H334 : May cause allergy or asthma symptoms or breathing difficul-

ties if inhaled.

H335 : May cause respiratory irritation. H351 : Suspected of causing cancer.

H373 : May cause damage to organs through prolonged or repeated

exposure.

### Full text of other abbreviations

Acute Tox. : Acute toxicity
Carc. : Carcinogenicity
Eve Irrit. : Eve irritation

Resp. Sens. : Respiratory sensitisation

Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitisation

STOT RE : Specific target organ toxicity - repeated exposure 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 : Globally Harmonized System

IATA : International Air Transport Association

IMDG : International Maritime Code for Dangerous Goods

LD50 : Median lethal dosis (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 Reg-

According to SANS 10234, SANS 10228, SANS 11014 and Hazardous Chemical Substance Regs. (GNR. 1179 of 25 August 1995)



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istration, 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:		Classification procedure:
Acute Tox. 4	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Resp. Sens. 1	H334	Calculation method
Skin Sens. 1	H317	Calculation method
Carc. 2	H351	Calculation method
STOT SE 3	H335	Calculation method
STOT RE 2	H373	Calculation method

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.

ZA / EN