

# SAFETY DATA SHEET

## Davco K10 Polyurethane (PU)



Version  
2.0

Revision Date:  
28.07.2022

SDS Number:  
100000034090

Date of last issue: 21.09.2020  
Date of first issue: 18.09.2020

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Davco K10 Polyurethane (PU)

Product code : 100000034090

#### Manufacturer or supplier's details

Company : Sika (Singapore) Pte Ltd.

28 Tuas South Ave 8  
637648 Singapore

Telephone : +65 6861 0632

Telefax : +65 6862 3915

E-mail address : -

Emergency telephone number : +65 6861 0632

### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Flammable liquids : Category 3

Skin corrosion/irritation : Category 2

Serious eye damage/eye irritation : Category 2

Respiratory sensitisation : Category 1

Skin sensitisation : Category 1

Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

#### GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 May cause respiratory irritation.

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### Precautionary statements

:

#### Prevention:

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.  
P242 Use only non-sparking tools.  
P243 Take precautionary measures against static discharge.  
P261 Avoid breathing mist or vapours.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves/ eye protection/ face protection.  
P284 Wear respiratory protection.

#### Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: 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 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P403 + P235 Store in a well-ventilated place. Keep cool.  
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.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Substance / Mixture : Mixture

### Components

Chemical name	CAS-No.	Concentration (% w/w)
4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and polyethoxylated and polypropoxylated glycerol	64298-75-5	>= 20 -< 30
Asphalt	8052-42-4	>= 20 -< 30
xylene	1330-20-7	>= 1 -< 10
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 : 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 : 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.  
Obtain medical attention.
- Most important symptoms and effects, both acute and delayed : irritant effects  
sensitising effects  
Asthmatic appearance  
Cough  
Respiratory disorder  
Allergic reactions  
Excessive lachrymation  
Dermatitis  
See Section 11 for more detailed information on health effects and symptoms.  
Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause respiratory irritation.

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Notes to physician : Treat symptomatically.

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### 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing media : Water
- Hazardous combustion products : No hazardous combustion products are known
- Specific extinguishing methods : Use water spray to cool unopened containers.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

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### 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Remove all sources of ignition.  
Deny access to unprotected persons.
- Environmental precautions : Prevent product from entering drains.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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### 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Use explosion-proof equipment.  
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.  
Take precautionary measures against electrostatic discharges.
- Advice on safe handling : Avoid formation of aerosol.  
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.

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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 application area.

Take precautionary measures against static discharge.

Open drum carefully as content may be under pressure.

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours).

Follow standard hygiene measures when handling chemical products

Conditions for safe storage : Store in original container.  
Keep in a well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
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 exposure)	Control parameters / Permissible concentration	Basis
Asphalt	8052-42-4	PEL (long term) (Fumes)	5 mg/m <sup>3</sup>	SG OEL
		TWA (Fume, inhalable fraction)	0.5 mg/m <sup>3</sup> (benzene soluble aerosol)	ACGIH
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	100 ppm	ACGIH
		STEL	150 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)	1.5 g/g creatinine	ACGIH BEI

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### 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

- Appearance : liquid
- Colour : black
- Odour : aromatic
- 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 : ca. 27.2 °C (81.0 °F)
- Evaporation rate : No data available

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Flammability (solid, gas) : No data available

Upper explosion limit / Upper flammability limit : 7 %(V)

Lower explosion limit / Lower flammability limit : 1 %(V)

Vapour pressure : 7.9993 hPa

Relative vapour density : No data available

Density : ca. 1.25 g/cm<sup>3</sup>

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 : 465 °C

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : > 2,000 mPa.s

Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

### 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 : Vapours may form explosive mixture with air.  
Stable under recommended storage conditions.

Conditions to avoid : Heat, flames and sparks.

Incompatible materials : No data available

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### 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

Not classified based on available information.

#### Components:

4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)] and polyethoxylated and polypropoxylated glycerol

:

Acute oral toxicity : LD50 Oral (Rat): > 10,000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rat): > 9,400 mg/kg

#### **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**

Causes skin irritation.

#### **Serious eye damage/eye irritation**

Causes serious eye irritation.

#### **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**

Not classified based on available information.

##### **Reproductive toxicity**

Not classified based on available information.

##### **STOT - single exposure**

May cause respiratory irritation.

##### **STOT - repeated exposure**

Not classified based on available information.



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### Aspiration toxicity

Not classified based on available information.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

##### **xylene:**

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 2.2 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

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.

## 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.

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### 14. TRANSPORT INFORMATION

#### International Regulations

##### UNRTDG

UN number : UN 1263  
Proper shipping name : PAINT RELATED MATERIAL  
(Xylene, Cutback Asphalt 60/70 90% in Xylene)  
Class : 3  
Packing group : III  
Labels : 3

##### IATA-DGR

UN/ID No. : UN 1263  
Proper shipping name : Paint related material  
(Xylene, Cutback Asphalt 60/70 90% in Xylene)  
Class : 3  
Packing group : III  
Labels : Flammable Liquids  
Packing instruction (cargo aircraft) : 366  
Packing instruction (passenger aircraft) : 355

##### IMDG-Code

UN number : UN 1263  
Proper shipping name : PAINT RELATED MATERIAL  
(Xylene, Cutback Asphalt 60/70 90% in Xylene)  
Class : 3  
Packing group : III  
Labels : 3  
EmS Code : F-E, S-E  
Marine pollutant : yes

#### 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

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

### 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 (Hazard-

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ous Substances) Regulations

### 16. OTHER INFORMATION

Date format : dd.mm.yyyy

#### 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
ACGIH / STEL	: Short-term exposure limit
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