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

#### 1.1 Product identifier

Trade name : SikaBiresin<sup>®</sup> PX521 (A)

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

Product use : Tooling system, Product is not intended for consumer use

#### 1.3 Details of the supplier of the safety data sheet

Company name of supplier	:	Sika Limited
		Watchmead Welwyn Garden City
		Hertfordshire. AL7 1BQ
Telephone	:	+44 (0)1707 394444
Telefax	:	+44 (0)1707 329129
E-mail address of person	:	EHS@uk.sika.com
responsible for the SDS		-

#### **1.4 Emergency telephone number**

National Chemical Emergency Centre (NCEC) 24 Hour Emergency Telephone Number +44 870 190 6777

## **SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 2 Skin irritation, Category 2 Eye irritation, Category 2 Respiratory sensitisation, Category 1	H330: Fatal if inhaled. H315: Causes skin irritation. H319: Causes serious eye irritation. H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitisation, Category 1 Specific target organ toxicity - single ex- posure, Category 3, Respiratory system	H317: May cause an allergic skin reaction. H335: May cause respiratory irritation.

#### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)



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	H317 H319 H330 H334 H335	May cause an allergic skin react Causes serious eye irritation. Fatal if inhaled. May cause allergy or asthma syn breathing difficulties if inhaled. May cause respiratory irritation.	
Precautionary statements :	<b>Prevention:</b> P260 P264 P280	Do not breathe mist or vapours. Wash skin thoroughly after hand Wear protective gloves/ eye prot protection.	
	<b>Response:</b> P304 + P340 + F P342 + P311		athing. Im- ER/ doctor.
	<b>Storage:</b> P403 + P233	Store in a well-ventilated place. tainer tightly closed.	Keep con-

# Hazardous components which must be listed on the label:

4,4'-methylenedi(cyclohexyl isocyanate)

## Additional Labelling

"As from 24 August 2023 adequate training is required before industrial or professional use."

## 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.

Ecological information: 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.

Toxicological information: 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.



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# **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures

#### Components

Chemical name	CAS-No. EC-No.	Classification	Concentration (% w/w)
4,4'-methylenedi(cyclohexyl iso- cyanate)	Registration number 5124-30-1 225-863-2 01-2119457437-31- XXXX	Acute Tox. 2; H330 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H314 Skin Sens. 1; H317 STOT SE 3; H335 (Respiratory system) specific concentration limit Resp. Sens. 1; H334 >= 0,5 % Skin Sens. 1; H317 >= 0,5 % Acute toxicity esti- mate Acute inhalation tox- icity (dust/mist): 0,33 mg/l	>= 60 - < 80

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. Symptoms of poisoning may appear several hours later.	
If inhaled	: Call a physician or poison control centre immediately.	
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.	



#### Date of last issue: 08.06.2023 Version 2.6 Print Date 01.09.2023 Revision Date: 01.09.2023 Keep eve wide open while rinsing. If eye irritation persists, consult a specialist. If swallowed Do not induce vomiting without medical advice. ٠ 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. Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. 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. 5.2 Special hazards arising from the substance or mixture

Hazardous combustion prod- : No hazardous combustion products are known ucts



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5.3 Advice for firefighters			
Special protective equipment for firefighters	In the e	event of fire, wear self-contained l	breathing apparatus.
Further information	Standa	ard procedure for chemical fires.	
SECTION 6: Accidental release	measur	es	
6.1 Personal precautions, protect	ve equipr	ment and emergency procedure	95
Personal precautions	•	ersonal protective equipment. access to unprotected persons.	
6.2 Environmental precautions			
Environmental precautions	If the p	flush into surface water or sanita product contaminates rivers and la tive authorities.	
6.3 Methods and material for cont	ainment a	and cleaning up	
Methods for cleaning up	acid biı	ip with inert absorbent material (e nder, universal binder, sawdust). n suitable, closed containers for d	

#### 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	:	<ul> <li>Avoid formation of aerosol.</li> <li>Avoid exceeding the given occupational exposure limits (see section 8).</li> <li>Do not get in eyes, on skin, or on clothing.</li> <li>For personal protection see section 8.</li> <li>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.</li> <li>Smoking, eating and drinking should be prohibited in the application area.</li> <li>Provide sufficient air exchange and/or exhaust in work rooms.</li> <li>Follow standard hygiene measures when handling chemical products</li> </ul>
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.



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Hygiene measures	:	Avoid contact with skin, eyes and clothing. Whe eat or drink. When using do not smoke. Wash h breaks and immediately after handling the produ	ands before
7.2 Conditions for safe storage, in	ncl	uding any incompatibilities	
Requirements for storage areas and containers	:	Prevent unauthorized access. Store in original of Keep in a well-ventilated place. Containers whice must be carefully resealed and kept upright to p age. Observe label precautions. Store in accord local regulations.	ch are opened vrevent leak-
Further information on stor- age stability	•	No decomposition if stored and applied as direc	ted.
7.3 Specific end use(s)			
Specific use(s)	:	Consult most current local Product Data Sheet puse.	prior to any

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

#### 8.1 Control parameters

## **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters *	Basis *
4,4'-methylenedi(cyclohexyl isocyanate)	5124-30-1	TWA	0,02 mg/m3 (NCO)	GB EH40
		ation: Substances t		
		nown as asthmage		
		tate of specific airw irritant or other me		
	•	-responsive, further		
		en in tiny quantities,		
		ymptoms can range		
	asthma. Not all workers who are exposed to a sensitiser will be-			
		sponsive and it is ir	•	
		likely to become hy		
		occupational asthr nich may trigger the		
		ng airway hyper-res		
		ease themselves. T		
		sthmagens or respi		
		found in the HSE p		
		of the evidence for a		
		ever it is reasonabl an cause occupation		
		not possible, the prin		
		ontrol to prevent wo		
		or substances that c		• • •



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	COSHH requires that exposure sonably practicable. Activities of centrations should receive part ment is being considered. Hea employees exposed or liable to may cause occupational asthm consultation with an occupation degree of risk and level of surv pational asthma., The 'Sen' no assigned only to those substar asthma in the categories show bered that other substances no pational asthma. HSE's asthma (www.hse.gov.uk/asthma) prov	giving rise to short-te icular attention when th surveillance is app be exposed to a sul a and there should b hal health profession eillance., Capable of ation in the list of WI ces which may caus in in Table 1. It should t in these tables may a web pages	rm peak con- risk manage- propriate for all bstance which be appropriate al over the causing occu- ELs has been e occupational d be remem- y cause occu-	
	STEL 0,07 mg/m3 GB EH40 (NCO)			
*The above mentioned values are in accordance with the legislation in effect at the date of the re-				

\*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

# **Biological occupational exposure limits**

Substance name	CAS-No.	Control parame- ters	Sampling time	Basis
4,4'-methylenedi(cyclohexyl isocya- nate)	5124-30-1	isocyanate- derived diamine (Isocyanates): 1 µmol/mol creati- nine (Urine)	At the end of the period of expo- sure	GB EH40 BAT

# 8.2 Exposure controls

## Engineering measures

Maintain air concentrations below occupational exposure standards. Ensure adequate ventilation, especially in confined areas.

## Personal protective equipment

Eye/face 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- proved standard must be worn at all times when handling chemical products. Reference number EN 374. Follow manu- facturer 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 additionaly recommended for mixing



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Respiratory protection :	<ul> <li>and stirring work.</li> <li>Use respiratory protection when vapours/aerosols are released. Suitable respiratory protection at high concentrations or longer exposure: self-contained breathing apparatus. Suitable respiratory protection for low concentrations: ABEK-filter.</li> </ul>	
Environmental exposure contr	ols	
General advice :	Do not flush into surface water or sanitary sewe If the product contaminates rivers and lakes or o respective authorities.	

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

## 9.1 Information on basic physical and chemical properties

-	Physical state Colour Odour	:	liquid transparent characteristic
	Melting point/range / Freezing point	:	No data available
	Boiling point/boiling range	:	No data available
	Flammability (solid, gas)	:	No data available
	Upper/lower flammability or e Upper explosion limit / Up- per flammability limit	•	
	Lower explosion limit / Lower flammability limit	:	No data available
	Flash point	:	ca. 200 °C Method: closed cup
	Auto-ignition temperature	:	No data available
	Decomposition temperature	:	No data available
	рН	:	Not applicable substance/mixture reacts with water
	Viscosity Viscosity, kinematic	:	No data available
	<b>Solubility(ies)</b> Water solubility	:	insoluble



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Partition coefficient: n- octanol/water	: No data available	
Vapour pressure	: 0,01 hPa	
Density	: ca. 1,07 g/cm3 (20 °C)	
Relative vapour density	: No data available	
Particle characteristics	: 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.		

# 10.4 Conditions to avoid

Conditions to avoid	:	No data available
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## 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 hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Fatal if inhaled.

## Components:

#### 4,4'-methylenedi(cyclohexyl isocyanate):

Acute oral toxicity : LD50 Oral (Rat): 18.200 mg/kg



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Acute inhalation toxicity	: LC50 (Rat): ca. 0,33 mg/l Exposure time: 4 h Test atmosphere: dust/mist	
	Acute toxicity estimate: 0,33 mg/l Test atmosphere: dust/mist Method: Calculation method	
Acute dermal toxicity	: LD50 Dermal (Rat): > 7.000 mg/kg	
Skin corrosion/irritation Causes skin irritation.		
Serious eye damage/eye irri Causes serious eye irritation.	tation	
Respiratory or skin sensitis	ation	
<b>Skin sensitisation</b> May cause an allergic skin rea	action.	
<b>Respiratory sensitisation</b> May cause allergy or asthma	symptoms or breathing difficulties if inhaled.	
Germ cell mutagenicity Not classified due to lack of d	ata.	
<b>Carcinogenicity</b> Not classified due to lack of d	ata.	
<b>Reproductive toxicity</b> Not classified due to lack of d	ata.	
STOT - single exposure May cause respiratory irritatio	n.	
STOT - repeated exposure Not classified due to lack of d	ata.	
Aspiration toxicity Not classified due to lack of d	ata.	
11.2 Information on other hazard	ls	
Endocrine disrupting prope	rties	
Product:		
Assessment	: The substance/mixture does not contain of ered to have endocrine disrupting propert REACH Article 57(f) or Commission Deleg (EU) 2017/2100 or Commission Regulation levels of 0.1% or higher.	ies according to gated regulation



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## **SECTION 12: Ecological information**

#### 12.1 Toxicity

No data available

#### 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..

#### 12.6 Endocrine disrupting properties

#### Product:

Assessment	:	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.

#### 12.7 Other adverse effects

#### Product:

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

## **SECTION 13: Disposal considerations**

#### **13.1 Waste treatment methods**

Product	<ul> <li>The generation of waste should be avoided or minimized wherever possible.</li> <li>Empty containers or liners may retain some product residues.</li> <li>This material and its container must be disposed of in a safe</li> </ul>
	way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should



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		at all times comply with the requirements of protection and waste disposal legislation a local authority requirements. Avoid dispersal of spilled material and run soil, waterways, drains and sewers.	and any regional
European Waste Catalogue	:	08 05 01* waste isocyanates	
Contaminated packaging	:	15 01 10* packaging containing residues on by dangerous substances	of or contaminated

# **SECTION 14: Transport information**

#### 14.1 UN number or ID number

ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	UN 3334
14.2 UN proper shipping name		
ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
ΙΑΤΑ	:	Aviation regulated liquid, n.o.s. (4,4'-methylenedi(cyclohexyl isocyanate))
14.3 Transport hazard class(es)		
ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
		Class Subsidiary risks
ΙΑΤΑ	:	9
14.4 Packing group		
ADR	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
<b>IATA (Cargo)</b> Packing group Labels	:	Not assigned by regulation Miscellaneous
<b>IATA (Passenger)</b> Packing group Labels	:	Not assigned by regulation Miscellaneous
14.5 Environmental hazards		
	:	Not regulated as a dangerous good



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IMDG	: Not regulated as a dangerous good	

IATA (Passenger) Environmentally hazardous : no

IATA (Cargo) Environmentally hazardous : no

#### 14.6 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.

#### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

# **SECTION 15: Regulatory information**

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17)	: Conditions of restriction for the fol- lowing entries should be considered: 4,4'-methylenedi(cyclohexyl isocya- nate) (Number on list 74)	
UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation	: Not applicable	
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Brit- ain)	: Not applicable	
International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors	: Not applicable	
Regulation (EC) No 1005/2009 on substances that de- plete the ozone layer	: Not applicable	
UK REACH List of substances subject to authorisation (Annex XIV)	: Not applicable	
GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation	: Not applicable	
Control of Major Accident Hazards Regulations H2 2015 (COMAH)	ACUTE TOXIC	
Volatile organic compounds : Law on the incentive ta (VOCV)	ax for volatile organic compounds	



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Volatile organic compounds (VOC) content: 0% w/w no VOC duties

Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Volatile organic compounds (VOC) content: 0% w/w

If other regulatory information applies that is not already provided elsewhere in the Safety Data Sheet, then it is described in this subsection.

Health, safety and environ-	<ul> <li>Environmental Protection Act 1990 &amp; Subsidiary Regulations</li></ul>
mental regulation/legislation	Health and Safety at Work Act 1974 & Subsidiary Regulations
specific for the substance or	Control of Substances Hazardous to Health Regulations
mixture:	(COSHH)
	May be subject to the Control of Major Accident Hazards Regulations (COMAH), and amendments.

## Other regulations:

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to new and expectant mothers at work contained in Regulation 16 to 18) and of the Pregnant Workers Directive 92/85/EEC.

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to protection of young people at work contained in Regulation 19) and of Directive 94/33/EC on the protection of young people at work.

#### 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		
H315	:	Causes skin irritation.
H317	:	May cause an allergic skin reaction.
H319	:	Causes serious eye irritation.
H330	:	Fatal if inhaled.
H334	:	May cause allergy or asthma symptoms or breathing difficul- ties if inhaled.
H335	:	May cause respiratory irritation.
Full text of other abbreviation	ons	
Acute Tox.	:	Acute toxicity
Eye Irrit.	:	Eye irritation
Resp. Sens.	:	Respiratory sensitisation
Skin Irrit.	:	Skin irritation
Skin Sens.	:	Skin sensitisation
STOT SE	:	Specific target organ toxicity - single exposure
GB EH40	:	UK. EH40 WEL - Workplace Exposure Limits
GB EH40 BAT	:	UK. Biological monitoring guidance values



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GB EH40 / TWA GB EH40 / STEL ADR	:	Long-term exposure limit (8-hour TWA reference Short-term exposure limit (15-minute reference European Agreement concerning the Internatior	period)
CAS DNEL	:	Dangerous Goods by Road Chemical Abstracts Service Derived no-effect level	
EC50 GHS IATA IMDG	:	Half maximal effective concentration Globally Harmonized System International Air Transport Association International Maritime Code for Dangerous Goo	de
LD50	:	Median lethal dosis (the amount of a material, g once, which causes the death of 50% (one half) test animals)	iven all at
LC50	:	Median lethal concentration (concentrations of t air that kills 50% of the test animals during the c period)	
MARPOL	:	International Convention for the Prevention of P Ships, 1973 as modified by the Protocol of 1978	
OEL PBT	:	Occupational Exposure Limit Persistent, bioaccumulative and toxic	
PNEC REACH	:	Predicted no effect concentration Regulation (EC) No 1907/2006 of the European and of the Council of 18 December 2006 concel istration, Evaluation, Authorisation and Restriction cals (REACH), establishing a European Chemic	rning the Reg- on of Chemi-
SVHC vPvB	:	Substances of Very High Concern Very persistent and very bioaccumulative	

## **Further information**

Classification of the mixture:		Classification procedure:
Acute Tox. 2	H330	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
STOT SE 3	H335	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.

Changes as compared to previous version !

GB / EN

Country GB 10000020961

# SAFETY DATA SHEET According to REACH Regulation (EC) No 1907/2006, as amended by UK REACH Regulations SI 2019/758

# SikaBiresin<sup>®</sup> PX521 (A)

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