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



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

1.1 Product identifier

Trade name : SikaBiresin® F190 (B)

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

Product use : Tooling system

1.3 Details of the supplier of the safety data sheet

Company name of supplier : Sika Limited

Watchmead Welwyn Garden City

Hertfordshire. AL7 1BQ +44 (0)1707 394444

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 4

Skin irritation, Category 2

H332: Harmful if inhaled.

H315: Causes skin irritation.

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 ex- H335: May cause respiratory irritation.

posure, Category 3, Respiratory system
Specific target organ toxicity - repeated H373: May cause damage to organs through pro-

exposure, Category 2 longed or repeated exposure if inhaled.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :





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Signal word	:	Danger	
Hazard statements	:	H315 H317 H319 H332 H334 H335 H351 H373	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure if inhaled.
Precautionary statements		Prevention:	
		P201 P260 P264 P280	Obtain special instructions before use. Do not breathe mist or vapours. Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.
		Response:	
			P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
		P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.

Hazardous components which must be listed on the label:

Diphenylmethanediisocyanate, isomeres and homologues

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. Registration number	Classification	Concentration (% w/w)
Diphenylmethanediisocyanate, isomeres and homologues	9016-87-9 Not Assigned	Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 Carc. 2; H351 STOT SE 3; H335 (Respiratory system) STOT RE 2; H373 specific concentration limit Eye Irrit. 2; H319 >= 5 % Resp. Sens. 1; H334 >= 0,1 % Skin Irrit. 2; H315 >= 5 % STOT SE 3; H335 >= 5 %	>= 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.

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.

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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.

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

for firefighters

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

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

products

Advice on protection against :

fire and explosion

Normal measures for preventive fire protection.

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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)

Specific use(s) : Cleaning with aprotic polar solvents must be avoided.

Consult most current local Product Data Sheet prior to any

use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters *	Basis *
Diphenylmethanediisocyanate, isomeres and homologues	9016-87-9	TWA	0,02 mg/m3 (NCO)	GB EH40
	Further information: Capable of causing occupational asthma.			al asthma.
		STEL	0,07 mg/m3 (NCO)	GB EH40

^{*}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
Diphenylmethanediisocyanate, isomeres and homologues	9016-87-9	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

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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 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.

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.

If the product contaminates rivers and lakes or drains inform

respective authorities.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid
Colour : brown
Odour : characteristic

Melting point/range / Freezing :

point

No data available

Boiling point/boiling range : 190 °C

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Flammability (solid, gas) : No data available

Upper/lower flammability or explosive limits

Upper explosion limit / Up- :

: No data available

per flammability limit

Lower explosion limit / Lower flammability limit

No data available

Flash point : > 200 °C

Method: closed cup

Auto-ignition temperature : No data available

Decomposition temperature : No data available

pH : Not applicable

substance/mixture reacts with water

Viscosity

Viscosity, kinematic : No data available

Solubility(ies)

Water solubility : insoluble

Partition coefficient: n-

octanol/water

No data available

Vapour pressure : 0,01 hPa

Density : 1,11 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

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Hazardous reactions : No hazards to be specially mentioned.

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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Harmful if inhaled.

Components:

Diphenylmethanediisocyanate, isomeres and homologues:

Acute oral toxicity : LD50 Oral (Rat): > 10.000 mg/kg

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

Exposure time: 4 h

Test atmosphere: dust/mist Method: Expert judgement

Assessment: The component/mixture is moderately toxic after

short term inhalation.

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

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 due to lack of data.

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Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

Not classified due to lack of data.

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 due to lack of data.

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components consid-

ered 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.

SECTION 12: Ecological information

12.1 Toxicity

Components:

Diphenylmethanediisocyanate, isomeres and homologues:

Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): > 1.000 mg/l

Exposure time: 96 h

Toxicity to algae/aquatic plants

: EC50 (Desmodesmus subspicatus (green algae)): > 1.640

mg/l

Exposure time: 72 h

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

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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 consid-

ered 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-

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

wav.

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.

European Waste Catalogue : 08 05 01* waste isocyanates

Contaminated packaging : 15 01 10* packaging containing residues of or contaminated

by dangerous substances

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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

IATA : Not regulated as a dangerous good

14.2 UN proper shipping name

ADR : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADR : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA : Not regulated as a dangerous good

14.4 Packing group

ADR : Not regulated as a dangerous good

IMDG : Not regulated as a dangerous good

IATA (Cargo) : Not regulated as a dangerous good

IATA (Passenger) : Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

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 mixtureRelevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17)

Conditions of restriction for the following entries should be considered: Diphenylmethanediisocyanate, isomeres and homologues (Number on list 56)

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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

Volatile organic compounds

Not applicable

Control of Major Accident Hazards Regulations

2015 (COMAH)

Not applicable

: Law on the incentive tax for volatile organic compounds (VOCV)

Volatile organic compounds (VOC) content: 0,2% 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: 0,2% 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 environmental regulation/legislation specific for the substance or mixture:

: Environmental Protection Act 1990 & Subsidiary Regulations Health and Safety at Work Act 1974 & Subsidiary Regulations Control of Substances Hazardous to Health Regulations (COSHH)

May be subject to the Control of Major Accident Hazards

Regulations (COMAH), and amendments.

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.

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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 if inhaled.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Carc. : Carcinogenicity
Eye Irrit. : Eye 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 GB EH40 : UK. EH40 WEL - Workplace Exposure Limits GB EH40 BAT : UK. Biological monitoring guidance values

GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

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 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

Further information

Classification of the mixture: Classification procedure:

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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.

Changes as compared to previous version!

GB / EN