

THE FENDER BCS GROUP OF COMPANIES

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# SUPA-FLEX

## MATERIAL SAFETY DATA SHEET

### 1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation: Product name: SUPA-FLEX  
 Use of the substance or the preparation: Sealant

### 2. Composition/information on ingredients

Hazardous ingredients	CAS No. EINECS/ELINCS No.	Conc. in %	Hazard symbol	Risks (R-phrases)
xylene, mixture of isomers	1330-20-7 215-535-7	1 - <10	Xn	10-20/21-38 (1)
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	4098-71-9 223-861-6	0.1 - <0.5	T;N	23-36/37/38-42/43-51/53 (1)
methylenediphenyl diisocyanate	26447-40-5 247-714-0	0.1 - <1	Xn	20-36/37/38-42/43 (1)
low boiling point naphtha, unspecified (conc. benzene < 0.1%)	64742-95-6 265-199-0	0.1 - <1	Xn;N	10-37-51/53-65-66-67 (1) (Labelling in compliance with CONCAWE)

(1) For R-phrases in full: see heading 16

### 3. Hazards Identification

- Flammable
- May cause sensitisation by inhalation

### 4. First aid measures

- Eye contact: - Rinse immediately with plenty of water  
 - Seek medical advice
- Skin contact: - Rinse immediately with plenty of water  
 - If irritation persists: seek medical advice
- After inhalation: - Remove the victim into fresh air  
 - Seek medical advice
- After ingestion: - Never give water to an unconscious person  
 - Do not induce vomiting  
 - Seek medical advice

### 5. Fire. fighting measures

- Suitable extinguishing media: - Polyvalent foam  
 - ABC powder  
 - Carbon dioxide
- Unsuitable extinguishing media: - None

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**5. Fire. fighting measures**

Special exposure hazards:

- Gas/vapour spreads at floor level: ignition hazard
- Vapour-air mixture is flammable/explosive within the explosion limits
- On burning: release of toxic and corrosive gases/vapours: sulphur oxides, hydrogen chloride, carbon monoxide and carbon dioxide

Instructions:

- Cool closed containers with water if they are exposed to the fire
- Dilute toxic gases with water spray
- Take account of environmentally hazardous firefighting water

Special protective equipment for firefighters:

- Heat/fire exposure: compressed air/oxygen apparatus

**6. Accidental release measures**

Personal protection/precautions:

See headings 8

Environmental precautions:

- Use appropriate containment to avoid environmental contamination

Methods of cleaning up:

- Take up liquid spill in non-combustible absorbent material e.g.: sand, earth, vermiculite
- Shovel absorbed substance in closing drums
- Carefully collect the spill/leftovers
- Take collected spill to manufacturer/competent authority
- Clean contaminated surfaces with an excess of water
- Wash clothing and equipment after handling

**7. Handling and storage**

Handling:

- Observe very strict hygiene - avoid contact
- Use spark-/explosionproof appliances and lighting system
- Take precautions against electrostatic charges
- Do not discharge the waste into the drain

Storage:

- Keep container tightly closed
- Keep out of direct sunlight
- Store in a dry area
- Keep away from: heat sources, ignition sources

Storage temperature : Room temperature

Quantity limit : N.D. kg

Storage life : N.D. days

Materials for packaging :

- suitable : aluminium

Specific uses:

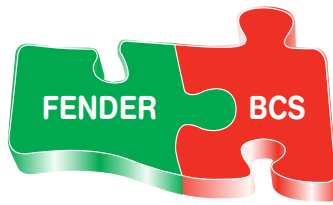
- See information supplied by the manufacturer

**8. Exposure controls/Personal protection**

Exposure limit values:

XYLENE, mixture of isomers:

TLV-TWA	:	mg/m3	100	ppm
TLV-STEL	:	mg/m3	150	ppm
TLV-Ceiling	:	mg/m3		ppm
WEL-LTEL	: 220	mg/m3	50	ppm
WEL-STEL	: 441	mg/m3	100	ppm
MAK	: 440	mg/m3	100	ppm
MAC-TGG 8 h	: 210	mg/m3		
MAC-TGG 15 min.:	422	mg/m3		
MAC-Ceiling	:	mg/m3		
VME-8 h	: 221	mg/m3	50	ppm
VLE-15 min.	: 442	mg/m3	100	ppm
GWBB-8 h	: 221	mg/m3	50	ppm
GWK-15 min.	: 442	mg/m3	100	ppm
Momentary value :		mg/m3		ppm
EC	: 221	mg/m3	50	ppm
EC-STEL	: 442	mg/m3	100	ppm



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### 8. Exposure controls/Personal protection

#### 3-ISOCYANATOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYL ISOCYANATE:

TLV-TWA	:	mg/m3	0.005	ppm
TLV-STEL	:	mg/m3		ppm
TLV-Ceiling	:	mg/m3		ppm
WEL-LTEL	:	0.02(-NCO) mg/m3		ppm
WEL-STEL	:	0.07(-NCO) mg/m3		ppm
MAK	:	0.046 mg/m3	0.005	ppm
MAC-TGG 8 h	:	0.05 mg/m3		
MAC-TGG 15 min.	:	0.19 mg/m3		
MAC-Ceiling	:	mg/m3		
VME-8 h	:	0.09 mg/m3	0.01	ppm
VLE-15 min.	:	0.18(5 min) mg/m3	0.02(5 min)	ppm
GWBB-8 h	:	0.046 mg/m3		ppm
GWK-15 min.	:	mg/m3		ppm
Momentary value	:	mg/m3		ppm
EC	:	mg/m3		ppm
EC-STEL	:	mg/m3		ppm

#### Exposure controls:

Occupational exposure controls: - Use only in well ventilated area

Respiratory protection: - In case of insufficient ventilation: respiratory protection with filtertype A

Hand protection: - Chemically resistant gloves

Eye protection: - Safety glasses

Skin protection: - Suitable protective clothing

Environmental exposure controls:

### 9. Physical and chemical properties

#### General information:

Appearance (at 20°C) : Viscous

Odour : Solvent

Colour : Variable in colour

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**9. Physical and chemical properties**

Important health, safety and environmental information:

pH value	: N.D.	
Boiling point/boiling range	: N.D.	°C
Flashpoint	: 25	°C
Explosion limits	: N.D.	vol%
Vapour pressure (at 20°C)	: N.D.	hPa
Vapour pressure (at 50°C)	: N.D.	hPa
Relative density (at 20°C)	: 1.2	
Water solubility	: Insoluble	
Soluble in	: No data available	
Relative vapour density	: > 1	
Viscosity	: N.D.	Pa.s
Flow time (ISO 2431)	: > 60	s
Partition coefficient n-octanol/water	: N.D.	
Evaporation rate		
ratio to butyl acetate	: N.D.	
ratio to ether	: N.D.	

Other information:

Melting point/melting range	: N.D.	°C
Auto-ignition point	: N.D.	°C
Saturation concentration	: N.D.	g/m <sup>3</sup>

**10. Stability and reactivity**

Conditions to avoid/reactivity:	- Stable under normal conditions
Materials to avoid:	- Keep away from: heat sources, ignition sources
Hazardous decomposition products:	- On burning: release of toxic and corrosive gases/vapours: sulphur oxides, hydrogen chloride, carbon monoxide and carbon dioxide

**11. Toxicological information**

Acute toxicity: XYLENE, mixture of isomers:

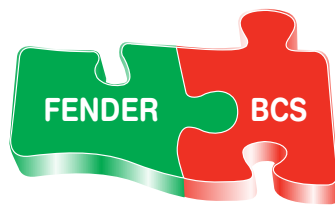
LD50 oral rat	: > 4300	mg/kg
LD50 dermal rabbit	: > 2000	mg/kg
LD50 dermal rabbit	: > 1700	mg/kg
LC50 inhalation rat	: 22	mg/l/4 h
LC50 inhalation rat	: 5000	ppm/4 h

3-ISOCYANATOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYL ISOCYANATE:

LD50 oral rat	: > 2500	mg/kg
LD50 dermal rabbit	: N.D.	mg/kg
LD50 dermal rabbit	: N.D.	mg/kg
LC50 inhalation rat	: 0.123	mg/l/4 h
LC50 inhalation rat	: N.D.	ppm/4 h

Chronic toxicity: XYLENE, mixture of isomers:

EC carc. cat.	:	not listed
EC muta. cat.	:	not listed
EC repr. cat.	:	not listed
Carcinogenicity (TLV)	:	A4
Carcinogenicity (MAC)	:	not listed
Carcinogenicity (VME)	:	not listed
Carcinogenicity (GWBB):	:	not listed
Carcinogenicity (MAK)	:	not listed
Mutagenicity (MAK)	:	not listed
Teratogenicity (MAK)	:	D
IARC classification	:	3



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### 11. Toxicological information

Routes of exposure: ingestion, inhalation, eye and skin

Acute effects/symptoms:

AFTER INHALATION: ON CONTINUOUS EXPOSURE/CONTACT:

- Headache
- Nausea
- Dizziness
- Narcosis

AFTER INGESTION: AFTER ABSORPTION OF HIGH QUANTITIES:

- Symptoms similar to those listed under inhalation

Chronic effects:

- May cause sensitization by inhalation
- Not listed in carcinogenicity class (IARC, EC, TLV, MAK)
- Not listed in mutagenicity class (EC, MAK)
- Not classified as toxic to reproduction (EC)

ON CONTINUOUS EXPOSURE/CONTACT: - Respiratory difficulties

### 12. Ecological information

Ecotoxicity: XYLENE, mixture of isomers:  
 - LC50 (96 h) : 3.77 mg/l (SALMO GAIRDNERI/ ONCORHYNCHUS MYKISS)  
 - EC50 (48 h) : 7.4 mg/l (DAPHNIA MAGNA)  
 - EC50 (72 h) : 10 mg/l (SKELETONEMA COSTATUM)

Mobility:

- Volatile organic compounds (VOC): 6%
- Insoluble in water

Persistence and degradability:

- biodegradation BOD5 : N.D. % ThOD
- water : No data available
- soil : T ½: N.D. days

Bioaccumulative potential:

- log Pow : N.D.
- BCF : N.D.

Other adverse effects:

- WGK : 2
- Effect on the ozone layer : Not dangerous for the ozone layer (1999/45/EC)
- Greenhouse effect : No data available
- Effect on waste water purification : No data available

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**13. Disposal considerations**

- Provisions relating to waste: - Waste material code (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 08 04 09\* (waste adhesives and sealants containing organic solvents or other dangerous substances)
- Disposal methods: - Hazardous waste (91/689/EEC)
- Packaging: - Recycle/reuse
- Waste material code packaging (91/689/EEC, Council Decision 2001/118/EC, O.J. L47 of 16/2/2001): 15 01 10\* (packaging containing residues of or contaminated by dangerous substances)

**14. Transport information**

Classification of the substance in compliance with UN Recommendations

UN number : 1993  
 CLASS : NOT SUBJECT  
 SUB RISKS : -  
 PACKING : -  
 PROPER SHIPPING NAME :  
 UN 1993, Flammable liquid, n.o.s. (xylenes)

ADR (transport by road)

CLASS : NOT SUBJECT  
 PACKING : -  
 CLASSIFICATION CODE :  
 DANGER LABEL TANKS : -  
 DANGER LABEL PACKAGES : -

RID (transport by rail)

CLASS : NOT SUBJECT  
 PACKING : -  
 CLASSIFICATION CODE :  
 DANGER LABEL TANKS : -  
 DANGER LABEL PACKAGES : -

ADNR (transport by inland waterways)

CLASS : NOT SUBJECT  
 PACKING : -  
 CLASSIFICATION CODE :  
 DANGER LABEL TANKS : -  
 DANGER LABEL PACKAGES : -

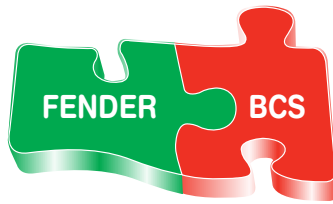
IMDG (maritime transport)

CLASS : 3  
 SUB RISKS : -  
 PACKING : III  
 MFAG : -  
 EMS : F-E,S-E  
 MARINE POLLUTANT : -

ICAO (air transport)

CLASS : 3  
 SUB RISKS : -  
 PACKING : III  
 PACKING INSTRUCTIONS PASSENGER AIRCRAFT : 309/Y309  
 PACKING INSTRUCTIONS CARGO AIRCRAFT : 310  
 Special precautions in connection with transport :

Viscous liquid with a flash point ranging from 23°C to 60°C, which meets the conditions indicated in 2 of ADR, RID and ADNR and in 2 of IMDG not subject to ADR, RID and ADNR and neither to IMDG Code chapters 4, 5, 6.



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### 15. Regulatory information

Labelling in accordance with directives 67/548/EEC and 1999/45/EC



HARMFUL

Contains	:	methylenediphenyl diisocyanate
R10	:	Flammable
R42	:	May cause sensitisation by inhalation
S(02)	:	(Keep out of reach of children)
S23	:	Do not breathe vapour
S45	:	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
S(63)	:	(In case of accident by inhalation: remove casualty to fresh air and keep at rest)
		Contains isocyanates. See information supplied by the manufacturer.
		Contains 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate. May produce an allergic reaction.

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**16. Other information**

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

N.A. = NOT APPLICABLE  
 N.D. = NOT DETERMINED  
 (\*) = INTERNAL CLASSIFICATION (NFPA)

## Exposure limits:

TLV : Threshold Limit Value - ACGIH USA  
 OES : Occupational Exposure Standards - United Kingdom  
 MEL : Maximum Exposure Limits - United Kingdom  
 MAK : Maximale Arbeitsplatzkonzentrationen - Germany  
 TRK : Technische Richtkonzentrationen - Germany  
 MAC : Maximale aanvaarde concentratie - the Netherlands  
 VME : Valeurs limites de Moyenne d'Exposition - France  
 VLE : Valeurs limites d'Exposition à court terme - France  
 GWBB : Grenswaarde beroepsmatige blootstelling - Belgium  
 GWK : Grenswaarde kortstondige blootstelling - Belgium  
 EC : Indicative occupational exposure limit values - directive 2000/39/EC

I : Inhalable fraction = T : Total dust = E : Einatembare Aerosolanteil

R : Respirable fraction = A : Alveolengängiger Aerosolanteil/Alveolar dust

C : Ceiling limit

a:	aerosol	r:	rook/Rauch	(fume)
d:	damp	st:	stof/Staub	(dust)
du:	dust	ve:	vezel	(fibre)
fa:	Faser	va:	vapour	
fi:	fibre	om:	oil mist	
fu:	fume	on:	olienevel/Ölnebel	(oil mist)
p:	poussière	part:	particles	

## Chronic toxicity:

K : List of the carcinogenic substances and processes - the Netherlands

## Full text of any R-phrases referred to under heading 2:

R10 : Flammable  
 R11 : Highly flammable  
 R20 : Harmful by inhalation  
 R20/21 : Harmful by inhalation and in contact with skin  
 R23 : Toxic by inhalation  
 R36/37/38 : Irritating to eyes, respiratory system and skin  
 R37 : Irritating to respiratory system  
 R38 : Irritating to skin  
 R42/43 : May cause sensitization by inhalation en skin contact  
 R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment  
 R65 : Harmful: may cause lung damage if swallowed  
 R66 : Repeated exposure may cause skin dryness or cracking  
 R67 : Vapours may cause drowsiness and dizziness