SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: REACH Regulation (EC) No 1907/2006, as retained in UK law by (SI 2019/758 as amended)

SIROFLEX POLYFLEX HM BLACK
Supercedes Date: 02-Jun-2022

Revision date 09-Apr-2024
Revision Number 2.01

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

1.1. Product identifier

Product Name SIROFLEX POLYFLEX HM BLACK

Pure substance/mixture Mixture

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

Recommended use Sealant

Uses advised against None known

1.3. Details of the supplier of the safety data sheet

Company Name
Bostik Limited
Common Rd
ST16 3EH
Stafford UK
Tel: +44 (1785) 27 26 25
Fax: +44 (1785) 25 72 36

E-mail address SDS.box-EU@bostik.com

1.4. Emergency telephone number

United Kingdom Bostik: +44 (1785) 272650 (9am to 5pm Mon-Fri)
NHS: 111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP (SI 2020/1567 as amended)

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

Signal word
None

Hazard statements
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

EU Specific Hazard Statements
EUH204 - Contains isocyanates. May produce an allergic reaction
EUH208 - Contains Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate. May produce an allergic reaction
EUH210 - Safety data sheet available on request

Special provisions concerning the labelling of certain mixtures
As from 24 August 2023 adequate training is required before industrial or professional use.

2.3. Other hazards

Causes mild skin irritation.

PBT & vPvB
This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	EC No (EU Index No)	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	REACH registration number
Xylene (reaction mass of ethylbenzene and xylene)	905-588-0	RR-45541-4	5 - <10	STOT SE 3 (H335) STOT RE 2 (H373) Asp. Tox. 1 (H304) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Acute Tox. 4 (H312) Acute Tox. 4 (H332) Flam Liq. 3 (H226)	-	01-2119488216-32-xxxx
Aromatic Polyisocyanate	500-120-8	53317-61-6	0.1- <1	Eye Irrit. 2 (H319) Skin Sens. 1 (H317)	-	[7]
Ethyl acetate	205-500-4 (607-022-00-5)	141-78-6	0.1 - <0.3	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225) (EUH066)	-	01-2119475103-46-XXXX
4,4'-Methylenediphenyl diisocyanate	202-966-0 (615-005-00-9)	101-68-8	0.01 - <0.1	Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Resp. Sens. 1 (H334) Skin Sens. 1 (H317)	STOT SE 3 :: C>=5% Skin Irrit. 2 :: C>=5% Eye Irrit. 2 :: C>=5% Resp. Sens. 1 :: C>=0.1%	01-2119457014-47-XXXX

				Carc. 2 (H351) STOT SE 3 (H335) STOT RE 2 (H373)		
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	1065336-91-5	0.01 - <0.1	Skin Sens. 1A (H317) Repr. 2 (H361f) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-	01-2119491304-40-XXXX
m-tolylidene diisocyanate	247-722-4 (615-006-00-4)	26471-62-5	0.01 - <0.1	Acute Tox. 1 (H330) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Resp. Sens. 1 (H334) Skin Sens. 1 (H317) Carc. 2 (H351) STOT SE 3 (H335) Aquatic Chronic 3 (H412)	Resp. Sens. 1 :: C>=0.1%	01-2119454791-34-XXXX

The substance does not require registration according to REACH - Notes
NOTE [7] - No registration number is given for this substance because it is a polymer exempted from registration according to the provisions of Article 2(9) of REACH. All monomers or other substances within the polymer are registered or exempt from registration

Full text of H- and EUH-phrases: see section 16
Substances identified by a number starting “RR-“ in the CAS-field are substances for which the CAS# is not adopted in EU and we use an internal numbering system to track within our SDS software

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Notes
See section 16 for more information

Chemical name	Notes
4,4'-Methylenediphenyl diisocyanate - 101-68-8	C,2
m-tolylidene diisocyanate - 26471-62-5	C

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air. IF exposed or concerned: Get medical advice/attention.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.

Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.
Ingestion	Clean mouth with water. Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	Prolonged contact may cause redness and irritation.
Effects of Exposure	No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	No information available.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	No information available.
Hazardous combustion products	Carbon oxides. Carbon monoxide. Carbon dioxide (CO2). Hydrocarbons. Nitrogen oxides (NOx). Aldehydes. Hydrogen cyanide. Isocyanates. Hydrochloric Acid.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment	Do not scatter spilled material with high pressure water streams.
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Protect from moisture.

Recommended storage temperature Keep at temperatures between 10 and 35 °C.

7.3. Specific end use(s)

Specific use(s)
Sealant.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

Other information Observe technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits This product contains carbon black in a non-respirable form. Inhalation of carbon black is unlikely to occur from exposure to this product

Chemical name	European Union	United Kingdom
Polyvinyl chloride 9002-86-2	-	TWA: 10 mg/m³ TWA: 4 mg/m³ STEL: 30 mg/m³ STEL: 12 mg/m³
Limestone 1317-65-3	-	TWA: 10 mg/m³ TWA: 4 mg/m³ STEL: 30 mg/m³ STEL: 12 mg/m³
Xylene (reaction mass of ethylbenzene and xylene) RR-45541-4	TWA: 50 ppm TWA: 221 mg/m³ STEL: 100 ppm STEL: 442 mg/m³ S*	STEL: 100 ppm STEL: 441 mg/m³ TWA: 50 ppm TWA: 220 mg/m³ Skin
Carbon black 1333-86-4	-	TWA: 3.5 mg/m³ STEL: 7 mg/m³
Ethyl acetate 141-78-6	TWA: 734 mg/m³ TWA: 200 ppm STEL: 1468 mg/m³ STEL: 400 ppm	TWA: 734 mg/m³ TWA: 200 ppm STEL: 1468 mg/m³ STEL: 400 ppm
4,4'-Methylenediphenyl diisocyanate 101-68-8	-	TWA: 0.02 mg/m³ STEL: 0.07 mg/m³ Sen+
m-tolylidene diisocyanate 26471-62-5	-	TWA: 0.02 mg/m³ STEL: 0.07 mg/m³ Sen+

Chemical name	European Union	Ireland	United Kingdom
4,4'-Methylenediphenyl diisocyanate 101-68-8	-	1 µmol/mol Creatinine (urine - urinary Diamine post task)	-

m-tolylidene diisocyanate 26471-62-5	-	1 µmol/mol Creatinine (urine - urinary Diamine post task)	-

Derived No Effect Level (DNEL) No information available

Derived No Effect Level (DNEL)			
Xylene (reaction mass of ethylbenzene and xylene) (RR-45541-4)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	221 mg/m³	
worker Long term Local health effects	Inhalation	221 mg/m³	
worker Short term Local health effects	Inhalation	442 mg/m³	
worker Long term Systemic health effects	Dermal	212 mg/kg bw/d	

Ethyl acetate (141-78-6)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Dermal	63 mg/kg bw/d	
worker Short term Systemic health effects	Inhalation	1468 mg/m³	
worker Long term Local health effects	Inhalation	734 mg/m³	
worker Short term Local health effects	Inhalation	1468 mg/m³	
worker Long term Systemic health effects	Inhalation	734 mg/m³	

4,4'-Methylenediphenyl diisocyanate (101-68-8)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Short term Systemic health effects	Dermal	50 mg/kg bw/d	
worker Short term Systemic health effects	Inhalation	0.1 mg/m³	
worker Short term Local health effects	Dermal	28700 µg/cm²	
worker Short term Local health effects	Inhalation	0.1 mg/m³	
worker Long term Systemic health effects	Inhalation	0.05 mg/m³	
worker	Inhalation	0.05 mg/m³	

Long term Local health effects			

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	1.27 mg/m³	
worker Systemic health effects Long term	Dermal	1.8 mg/kg	

m-tolylidene diisocyanate (26471-62-5)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
worker Long term Systemic health effects	Inhalation	0.035 mg/m³	
worker Short term Systemic health effects	Inhalation	0.14 mg/m³	
worker Long term Local health effects	Inhalation	0.035 mg/m³	
worker Short term Local health effects	Inhalation	0.14 mg/m³	

Derived No Effect Level (DNEL)			
Xylene (reaction mass of ethylbenzene and xylene) (RR-45541-4)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Inhalation	65.3 mg/m³	
Consumer Short term Systemic health effects	Inhalation	260 mg/m³	
Consumer Long term Local health effects	Inhalation	65.3 mg/m³	
Consumer Short term Local health effects	Inhalation	260 mg/m³	
Consumer Long term Systemic health effects	Dermal	125 mg/kg bw/d	
Consumer Long term Systemic health effects	Oral	12.5 mg/kg bw/d	

Ethyl acetate (141-78-6)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Oral	4.5 mg/kg bw/d	

Consumer Long term Systemic health effects	Dermal	37 mg/kg bw/d	
Consumer Short term Systemic health effects	Inhalation	734 mg/m³	
Consumer Long term Local health effects	Inhalation	367 mg/m³	
Consumer Short term Local health effects	Inhalation	734 mg/m³	
Consumer Long term Systemic health effects	Inhalation	367 mg/m³	

4,4'-Methylenediphenyl diisocyanate (101-68-8)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Short term Systemic health effects	Dermal	25 mg/kg bw/d	
Consumer Short term Systemic health effects	Inhalation	0.05 mg/m³	
Consumer Short term Systemic health effects	Oral	20 mg/kg bw/d	
Consumer Short term Local health effects	Dermal	17200 µg/cm²	
Consumer Short term Local health effects	Inhalation	0.05 mg/m³	
Consumer Long term Systemic health effects	Inhalation	0.025 mg/m³	
Consumer Long term Local health effects	Inhalation	0.025 mg/m³	

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)			
Type	Exposure route	Derived No Effect Level (DNEL)	Safety factor
Consumer Long term Systemic health effects	Inhalation	0.31 mg/m³	
Consumer Long term Systemic health effects	Dermal	0.9 mg/kg	
Consumer Long term Systemic health effects	Oral	0.18 mg/kg	

Predicted No Effect Concentration (PNEC)

Predicted No Effect Concentration (PNEC)

Xylene (reaction mass of ethylbenzene and xylene) (RR-45541-4)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.327 mg/l
Marine water	0.327 mg/l
Microorganisms in sewage treatment	6.58 mg/l
Freshwater sediment	12.46 mg/kg dry weight
Soil	2.31 mg/kg dry weight

Ethyl acetate (141-78-6)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.24 mg/l
Marine water	0.024 mg/l
Freshwater sediment	1.15 mg/kg
Marine sediment	0.115 mg/kg
Soil	0.148 mg/kg
Microorganisms in sewage treatment	650 mg/l

4,4'-Methylenediphenyl diisocyanate (101-68-8)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	1 mg/l
Marine water	0.1 mg/l
Soil	1 mg/kg dry weight
Sewage treatment plant	1 mg/l
Freshwater - intermittent	10 mg/l

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.0022 mg/l
Marine water	0.00022 mg/l
Freshwater - intermittent	0.009 mg/l
Freshwater sediment	1.05 mg/kg
Marine sediment	0.11 mg/kg
Soil	0.21 mg/kg
Sewage treatment plant	1 mg/l

m-tolylidene diisocyanate (26471-62-5)	
Environmental compartment	Predicted No Effect Concentration (PNEC)
Freshwater	0.013 mg/l
Marine water	0.00125 mg/l
Microorganisms in sewage treatment	>1 mg/l
Soil	>1 mg/kg dry weight

8.2. Exposure controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Eye protection must conform to standard EN 166.

Hand protection Wear suitable gloves. Gloves must conform to standard EN 374. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. The breakthrough time of the gloves depends on the material and the thickness as well as the temperature. Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Skin and body protection Suitable protective clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Recommended filter type: Wear a respirator conforming to EN 140 with Type A/P2 filter or better. Organic gases and vapours filter conforming to EN 14387.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Paste
Colour	Black
Odour	Characteristic.

Property	**Values**	**Remarks • Method**
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	Not applicable .	
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	> 61 °C	
Autoignition temperature	No data available	None known
Decomposition temperature		None known
pH	No data available	Not applicable.
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	approx 488000 mm²/s	
Dynamic viscosity	approx 600000 mPa s	
Water solubility	No data available.	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known
Bulk Density	No data available	
Density	1.23 g/cm³	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

Solid content (%)	No information available
VOC content	No data available

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical None.

impact
Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Product cures with moisture. Protect from moisture.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None under normal use conditions. Stable under recommended storage conditions.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation Based on available data, the classification criteria are not met.

Eye contact Based on available data, the classification criteria are not met.

Skin contact Specific test data for the substance or mixture is not available. Causes mild skin irritation.

Ingestion Based on available data, the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Prolonged contact may cause redness and irritation.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) >5000 mg/kg
ATEmix (dermal) 13,729.80 mg/kg
ATEmix (inhalation-gas) >20000 ppm
ATEmix (inhalation-dust/mist) >5 mg/l
ATEmix (inhalation-vapour) 333.20 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Xylene (reaction mass of ethylbenzene and xylene)	=3500 mg/kg (Rattus)	>10000 mg/kg (Oryctolagus cuniculus)	=>47635 mg/L (Rattus) 4 h = >5000 ppm (Rattus) 4 h
Aromatic Polyisocyanate	LD50 >2000 mg/Kg (Rattus)	-	LC50 >3.820 mg/L (Rattus) 4h dust/mist
Ethyl acetate	=5620 mg/kg (Rattus)	> 18000 mg/kg (Oryctolagus cuniculus) > 20 mL/kg	LC0 29.3 mg/l air

		(Oryctolagus cuniculus)	
4,4'-Methylenediphenyl diisocyanate	=31600 mg/kg (Rattus) = 9200 mg/kg (Rattus)	LD 50 > 9400 mg/kg (Oryctolagus cuniculus) OECD 402	1.5 mg/L (Rattus) 4 h
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	LD50 = 3230 mg/Kg (Rattus) (OECD 401)	LD50 >3170 mg/Kg (Rattus) (OECD 402)	-
m-tolylidene diisocyanate	=3060 mg/kg (Rattus)	= 10000 mg/kg (Oryctolagus cuniculus)	=0.107 mg/L 4h (Vapour)(Rattus) (OECD 403) =0.48 mg/L 1h (Vapour)(Rattus) (OECD 403)

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes mild skin irritation.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

4,4'-Methylenediphenyl diisocyanate (101-68-8)

Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	Eye	0.1 mL	24 hours	Non-irritant

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Component Information
Ethyl acetate (141-78-6)

Method	Species	Results
OECD Test No. 474: Mammalian Erythrocyte Micronucleus Test	in vivo Hamster	Negative
OECD Test No. 471: Bacterial Reverse Mutation Test	in vitro Salmonella typhimurium	Negative
OECD Test No. 473: In vitro Mammalian Chromosome Aberration Test	in vitro Hamster Ovary	Negative

Carcinogenicity Based on available data, the classification criteria are not met.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component Information
4,4'-Methylenediphenyl diisocyanate (101-68-8)

Method	Species	Results
OECD Test No. 453: Combined Chronic Toxicity/Carcinogenicity Studies	Rat	Limited evidence of a carcinogenic effect

Chemical name	European Union
4,4'-Methylenediphenyl diisocyanate	Carc. 2
m-tolylidene diisocyanate	Carc. 2

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea	M-Factor	M-Factor (long-term)
Xylene (reaction mass of ethylbenzene and xylene) RR-45541-4	EC50 (72hr) 2.2 mg/l (Selenastrum capricornutum)	LC50(96h) 2.6 mg/l (Oncorhynchus mykiss-OECD 203)	EC50 = 0.0084 mg/L 24 h	LC50(24h) 1 mg/l (Daphnia magna-OECD 202)		
Ethyl acetate 141-78-6	EC50: =3300mg/L (48h, Desmodesmus subspicatus)	LC50: =484mg/L (96h, Oncorhynchus mykiss) LC50: 352 - 500mg/L (96h, Oncorhynchus mykiss) LC50: 220 - 250mg/L (96h, Pimephales promelas)	EC50 = 1180 mg/L 5 min EC50 = 1500 mg/L 15 min EC50 = 5870 mg/L 15 min EC50 = 7400 mg/L 2 h	EC50: =560mg/L (48h, Daphnia magna)		
4,4'-Methylenediphenyl diisocyanate 101-68-8	ErC50 (72h) >1640 mg/L Algae (scenedesmus subspicatus) (OECD 201)	>1000 mg/l Danio rerio	-	EC50 (24H) >1000 mg/L Daphnia magna		
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	EC50 (72h): 1.68 mg/l (Desmodesmus subspicatus) OECD 201	LC50 (96h): 0.9 mg/L (Brachydanio rerio) OECD 203	EC20 (3h)>= 100 mg/l OECD 209	-	1	1

1065336-91-5						

12.2. Persistence and degradability

Persistence and degradability No information available.

Aromatic Polyisocyanate (53317-61-6)

Method	Exposure time	Value	Results
OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F)		biodegradation	34 % Not readily biodegradable

4,4'-Methylenediphenyl diisocyanate (101-68-8)

Method	Exposure time	Value	Results
OECD Test No. 302C: Inherent Biodegradability: Modified MITI Test (II)	28 days	0% biodegradation	Not readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Xylene (reaction mass of ethylbenzene and xylene)	3.15
Ethyl acetate	0.73
4,4'-Methylenediphenyl diisocyanate	4.51
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	2.77
m-tolylidene diisocyanate	3.43

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration.

Chemical name	PBT and vPvB assessment
Xylene (reaction mass of ethylbenzene and xylene)	The substance is not PBT / vPvB
Ethyl acetate	The substance is not PBT / vPvB
4,4'-Methylenediphenyl diisocyanate	The substance is not PBT / vPvB
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	The substance is not PBT / vPvB
m-tolylidene diisocyanate	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.
European Waste Catalogue	08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09
Other information	Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	-
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant	NP
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	
Transport in bulk according to Annex II of MARPOL and the IBC Code	Not applicable

Air transport (ICAO-TI / IATA-DGR)

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

Section 15: REGULATORY INFORMATION

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

European Union

Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACh) Regulation (EC 1907/2006)

SVHC: Substances of Very High Concern for Authorisation:
This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

Chemical name	CAS No.	Restricted substance per REACH Annex XVII
Diisocyantes	--	74

74 If product supplied to the industrial or professional users with total monomeric diisocyanates ≥ 0.1%, then its packaging must mention “As from 24 August 2023 adequate training is required before industrial or professional use”.

Substance subject to authorisation per REACH Annex XIV
This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

Persistent Organic Pollutants
Not applicable

REGULATION (EU) 2019/1148 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 20 June 2019 on the marketing and use of explosives precursors
Not applicable

National regulations

15.2. Chemical safety assessment

Chemical Safety Assessments have been carried out by the Reach registrants for substances registered at >10 tpa. No Chemical Safety Assessment has been carried out for this mixture

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3
H225 - Highly flammable liquid and vapour
H226 - Flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
H312 - Harmful in contact with skin
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H330 - Fatal if inhaled
H332 - Harmful if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H351 - Suspected of causing cancer
H361f - Suspected of damaging fertility
H373 - May cause damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H412 - Harmful to aquatic life with long lasting effects

Notes relating to the identification, classification and labelling of substances
Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers

Notes relating to the classification and labelling of mixtures

Note 2 : The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture

Legend

TWA	TWA (time-weighted average)
STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value
Sk*	Skin designation
SVHC	Substance(s) of Very High Concern
PBT	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
vPvB	Very Persistent and very Bioaccumulative (vPvB) Chemicals
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
EWC	European Waste Catalogue
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG	International Maritime Dangerous Goods (IMDG)
IATA	International Air Transport Association (IATA)
RID	Regulations concerning the International Transport of Dangerous Goods by Rail

Key literature references and sources for data

No information available

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Indication of changes

Revision note	SDS sections updated, 1, 2.
Training Advice	AS FROM 24 AUGUST 2023 ADEQUATE TRAINING IS REQUIRED BEFORE INDUSTRIAL OR PROFESSIONAL USE For further information, please contact: https://www.safeusediisocyanates.eu/
Further information	No information available

This SDS complies with the requirements of UK REACH Regulations SI 2019/758 (as amended)

Disclaimer

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End of Safety Data Sheet