

Bauder Fleece - Backed Membrane Adhesive (blue) - Drum

safety data sheet as per 1907/2006 (REACH), Annex II

Revision date: May 2022 Supersedes : 09.02.2018

COMPANY UNDERTAKING

Bauder Limited
70 Landseer Road
Ipswich
Suffolk IP3 0DH England

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

1.1. Product identifier

Product name Bauder Fleece – Backed Membrane Adhesive (blue) - Drum
Product number GB12103100

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

Identified uses Adhesive.
Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier Bauder Ltd
70 Landseer Road
Ipswich
Suffolk
IP3 0DH
Tel: +44 (0) 1473 257671

Emergency telephone

NPIS (National Poisons Information Service): 0344 892 0111 (for medical professionals only).
For medical advice, members of the public should contact NHS 111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (SI 2019 No. 720)

Physical hazards Not Classified
Health hazards 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 STOT RE 2 - H373
Environmental hazards Not Classified

Human health

May cause sensitisation by inhalation. Contains non-volatile isocyanate. Heating may generate vapours which irritate the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. Label elements

Hazard pictograms



Signal word

Danger

Hazard statements

H332 Harmful if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P260 Do not breathe vapour/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/ attention.
P501 Dispose of contents/ container in accordance with national regulations.

Supplemental label information

EUH204 Contains isocyanates. May produce an allergic reaction.

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

Contains

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE, REACTION MASS OF 4'4 METHYLENEDIPHENYL DIISOCYANATE AND O-(P-ISOCYANATOBENZYL)PHENYL ISOCYANATE , diphenylmethane-diisocyanate, isomers and homologues

Supplementary precautionary statements

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing vapour/ spray.
P264 Wash contaminated skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P284 [In case of inadequate ventilation] wear respiratory protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTRE/doctor if you feel unwell.
P314 Get medical advice/ attention if you feel unwell.
P321 Specific treatment (see medical advice on this label).
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
P362+P364 Take off contaminated clothing and wash it before reuse.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<p>DIPHENYLMETHANE-4,4'-DI-ISOCYANATE</p> <p>CAS number: 101-68-8 EC number: 202-966-0</p>	<p>10-30%</p>
<p>Classification</p> <p>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 STOT RE 2 - H373</p>	
<p>REACTION MASS OF 4'4 METHYLENEDIPHENYL DIISOCYANATE AND O-(P- ISOCYANATOBENZYL)PHENYL ISOCYANATE</p> <p>CAS number: — EC number: 905-806-4</p>	<p>10-30%</p>
<p>Classification</p> <p>Acute Tox. 2 - H330 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Carc. 2 - H351 STOT SE 3 - H335 STOT RE 2 - H373</p>	
<p>diphenylmethane-diisocyanate, isomers and homologues</p> <p>CAS number: 9016-87-9</p>	<p>5-10%</p>
<p>Classification</p> <p>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 STOT RE 2 - H373</p>	

4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with, butane-1,3-diol, 2,4'-diisocyanatodiphenylmethane,, 1,1'-methylenebis(4-isocyanatobenzene) homopolymer,, [(methylene)bis(oxy)]diprop anol and propane-1,2-diol CAS number: – EC number: 500-313-7	1-5%
Classification 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 STOT RE 2 - H373	
4'4-METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS CAS number: – EC number: 500-040-3	1-5%
Classification 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 STOT RE 2 - H373	
DIPHENYLMETHANE-2,4'-DI-ISOCYANATE CAS number: 5873-54-1 EC number: 227-534-9	<1%
Classification 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 STOT RE 2 - H373	

DIPHENYLMETHANE-2,2'-DI-ISOCYANATE		<1%
CAS number: 2536-05-2	EC number: 219-799-4	

<p>Classification</p> <p>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 STOT RE 2 - H373</p>

Orthophosphoric acid 85%		<1%
CAS number: 7664-38-2	EC number: 231-633-2	

<p>Classification</p> <p>Met. Corr. 1 - H290 Acute Tox. 4 - H302 Skin Corr. 1B - H314</p>
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The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Remove affected person from source of contamination.
Inhalation	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
Ingestion	DO NOT induce vomiting. Get medical attention immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Irritation of nose, throat and airway. Coughing, chest tightness, feeling of chest pressure.
Ingestion	May cause discomfort if swallowed.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	Severe irritation, burning and tearing.

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

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	The product is non-combustible. Irritating gases or vapours.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

5.3. Advice for firefighters

Protective actions during firefighting	Containers close to fire should be removed or cooled with water. Do not allow water to contact any leaked material.
Special protective equipment for firefighters	Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet.
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6.2. Environmental precautions

Environmental precautions	Do not discharge into drains or watercourses or onto the ground.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Absorb spillage with non-combustible, absorbent material. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Provide adequate ventilation. Contain spillage with sand, earth or other suitable non-combustible material. Avoid the spillage or runoff entering drains, sewers or watercourses.
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6.4. Reference to other sections

Reference to other sections	Wear protective clothing as described in Section 8 of this safety data sheet.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Avoid inhalation of vapours and spray/mists. Avoid contact with skin and eyes. Do not use in confined spaces without adequate ventilation and/or respirator. Spraying is permitted only in closed systems, spray cabinets or spray boxes with adequate ventilation.
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7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Store in closed original container at temperatures between 5°C and 25°C.
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Storage class	Chemical storage.
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7.3. Specific end use(s)

Specific end use(s)	The identified uses for this product are detailed in Section 1.2.
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SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m³(Sen)

Short-term exposure limit (15-minute): WEL 0.07 mg/m³(Sen)

diphenylmethane-diisocyanate, isomers and homologues

Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m³

Short-term exposure limit (15-minute): WEL 0.07 mg/m³

4'4-METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS

Short-term exposure limit (15-minute): WEL 0.07 mg/m³

Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m³

DIPHENYLMETHANE-2,4'-DI-ISOCYANATE

Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m³(Sen)

Short-term exposure limit (15-minute): WEL 0.07 mg/m³(Sen)

DIPHENYLMETHANE-2,2'-DI-ISOCYANATE

Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m³(Sen)

Short-term exposure limit (15-minute): WEL 0.07 mg/m³(Sen)

Orthophosphoric acid 85%

Long-term exposure limit (8-hour TWA): WEL 1 mg/m³

Short-term exposure limit (15-minute): WEL 2 mg/m³

WEL = Workplace Exposure Limit.

Ingredient comments

WEL = Workplace Exposure Limits

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE (CAS: 101-68-8)

DNEL

Workers - Inhalation; Short term systemic effects: 0.1 mg/m³

Workers - Dermal; Short term local effects: 28.7 mg/cm²

Workers - Inhalation; Short term local effects: 0.1 mg/m³

Workers - Inhalation; Long term systemic effects: 0.05 mg/m³

Workers - Inhalation; Long term local effects: 0.05 mg/m³

Consumer - Dermal; Short term systemic effects: 25 mg/kg bw/day

Workers - Dermal; Short term systemic effects: 50 mg/kg bw/day

Consumer - Oral; Short term systemic effects: 20 mg/kg bw/day

Consumer - Dermal; Short term local effects: 17.2 mg/cm²

Consumer - Inhalation; Short term local effects: 0.05 mg/m³

Consumer - Inhalation; Long term systemic effects: 0.025 mg/m³

Consumer - Inhalation; Long term local effects: 0.025 mg/m³

Consumer - Inhalation; Short term systemic effects: 0.05 mg/m³

PNEC

- marine water; 0.1 mg/l

- STP; 1 mg/l

- Fresh water; 1 mg/l

- Soil; 1 mg/kg

REACTION MASS OF 4'4 METHYLENEDIPHENYL DIISOCYANATE AND O-(P-ISOCYANATOBENZYL)PHENYL ISOCYANATE

DNEL

Workers - Dermal; Short term systemic effects: 50 mg/kg bw/day

Workers - Inhalation; Short term systemic effects: 0.1 mg/m³

Workers - Dermal; Short term local effects: 28.7 mg/cm²

Workers - Inhalation; Short term local effects: 0.1 mg/m³

Workers - Inhalation; Long term systemic effects: 0.05 mg/m³

Workers - Inhalation; Long term local effects: 0.05 mg/m³
Consumer - Dermal; Short term systemic effects: 25 mg/kg bw/day
Consumer - Inhalation; Short term systemic effects: 0.05 mg/m³
Consumer - Oral; Short term systemic effects: 20 mg/kg bw/day
Consumer - Dermal; Short term local effects: 17.2 mg/cm²
Consumer - Inhalation; Short term local effects: 0.05 mg/m³
Consumer - Inhalation; Long term systemic effects: 0.025 mg/m³
Consumer - Inhalation; Long term local effects: 0.025 mg/m³

PNEC

- Fresh water; 1 mg/l
- marine water; 0.1 mg/l
- Soil; 1 mg/kg
- STP; 1 mg/l

diphenylmethane-diisocyanate, isomers and homologues (CAS: 9016-87-9)

Ingredient comments WEL = Workplace Exposure Limits

DNEL

Workers - Dermal; Short term systemic effects: 50 mg/kg
Workers - Inhalation; Short term systemic effects: 0.1 mg/m³
Workers - Dermal; Short term local effects: 28.7 mg/cm²
Workers - Inhalation; Short term local effects: 0.1 mg/m³
Workers - Inhalation; Long term systemic effects: 0.05 mg/m³
Workers - Inhalation; Long term local effects: 0.05 mg/m³
General population - Dermal; Short term systemic effects: 25 mg/kg
General population - Inhalation; Short term systemic effects: 0.05 mg/m³
General population - Oral; Short term systemic effects: 20 mg/kg
General population - Dermal; Short term local effects: 17.2 mg/cm²
General population - Inhalation; Short term local effects: 0.05 mg/m³
General population - Inhalation; Long term systemic effects: 0.025 mg/m³
General population - Inhalation; Long term local effects: 0.025 mg/m³

PNEC

- Fresh water; 1 mg/l
- marine water; 0.1 mg/l
- Soil; 1 mg/kg dry weight
- STP; 1 mg/l

4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with, butane-1,3-diol, 2,4'-diisocyanatodiphenylmethane,, 1,1'-methylenebis(4- isocyanatobenzene) homopolymer,, [(methylethylene)bis(oxy)]diprop anol and propane-1,2-diol

DNEL	Workers - Inhalation; Short term systemic effects: 0.1 mg/m ³ Workers - Dermal; Short term local effects: 28.7 mg/cm ² Workers - Inhalation; Short term local effects: 0.1 mg/m ³ Workers - Inhalation; Long term systemic effects: 0.05 mg/m ³ Workers - Inhalation; Long term local effects: 0.05 mg/m ³ Consumer - Dermal; Short term systemic effects: 25 mg/kg bw/day Workers - Dermal; Short term systemic effects: 50 mg/kg bw/day Consumer - Oral; Short term systemic effects: 20 mg/kg bw/day Consumer - Dermal; Short term local effects: 17.2 mg/cm ² Consumer - Inhalation; Short term local effects: 0.05 mg/m ³ Consumer - Inhalation; Long term systemic effects: 0.025 mg/m ³ Consumer - Inhalation; Long term local effects: 0.025 mg/m ³ Consumer - Inhalation; Short term systemic effects: 0.05 mg/m ³
PNEC	- marine water; 0.1 mg/l - STP; 1 mg/l - Fresh water; 1 mg/l - Soil; 1 mg/kg

4'4-METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS

DNEL	Workers - Inhalation; Short term systemic effects: 0.1 mg/m ³ Workers - Dermal; Short term local effects: 28.7 mg/cm ² Workers - Inhalation; Short term local effects: 0.1 mg/m ³ Workers - Inhalation; Long term systemic effects: 0.05 mg/m ³ Workers - Inhalation; Long term local effects: 0.05 mg/m ³ Consumer - Dermal; Short term systemic effects: 25 mg/kg bw/day Workers - Dermal; Short term systemic effects: 50 mg/kg bw/day Consumer - Oral; Short term systemic effects: 20 mg/kg bw/day Consumer - Dermal; Short term local effects: 17.2 mg/cm ² Consumer - Inhalation; Short term local effects: 0.05 mg/m ³ Consumer - Inhalation; Long term systemic effects: 0.025 mg/m ³ Consumer - Inhalation; Long term local effects: 0.025 mg/m ³ Consumer - Inhalation; Short term systemic effects: 0.05 mg/m ³
PNEC	- marine water; 0.1 mg/l - STP; 1 mg/l - Fresh water; 1 mg/l - Soil; 1 mg/kg

2,2'DIMORPHOLINYLDIETHYL ETHER (CAS: 6425-39-4)

DNEL	Workers - Inhalation; Long term systemic effects: 7.28 mg/m ³ Workers - Dermal; Long term systemic effects: 1 mg/kg bw/day Consumer - Inhalation; Long term systemic effects: 1.8 mg/m ³ Consumer - Dermal; Long term systemic effects: 0.5 mg/kg bw/day Consumer - Oral; Long term systemic effects: 0.5 mg/kg bw/day
PNEC	- Fresh water; 0.1 mg/l - marine water; 0.01 mg/l - Intermittent release; 1 mg/l - Sediment (Freshwater); 8.2 mg/kg - Sediment (Marinewater); 0.82 mg/kg - STP; 100 mg/l - Soil; 1.58 mg/kg -

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients. As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.

Eye/face protection

Wear chemical splash goggles.

Hand protection

It is recommended that gloves are made of the following material: Nitrile rubber. It should be noted that liquid may penetrate the gloves. Frequent changes are recommended. For exposure up to 8 hours, wear gloves made of the following material: Nitrile rubber.

Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination. Wear apron or protective clothing in case of contact.

Hygiene measures

Use engineering controls to reduce air contamination to permissible exposure level. Wash hands after handling. When using do not eat, drink or smoke.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P3. When spraying, wear a suitable supplied-air respirator.

Environmental exposure controls

Keep container tightly sealed when not in use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Coloured liquid.
Colour	Various colours.
Odour	Musty (mouldy).
Odour threshold	Not available.
pH	Estimated value. pH (concentrated solution): 7-8
Melting point	<10°C
Initial boiling point and range	330°C @ mbar
Flash point	>200°C Closed cup.
Evaporation rate	slow
Evaporation factor	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	Estimated value. : 0.6% - 11.5%

Other flammability	Not available.
Vapour pressure	0.01 Pa @ °C
Vapour density	8.5
Relative density	1.12
Bulk density	Not available.
Solubility(ies)	Insoluble in water. Hardens in contact with water.
Partition coefficient	Not available.
Auto-ignition temperature	>600°C
Decomposition Temperature	Not available.
Viscosity	90-130 mPa s @ 25°C
Explosive properties	Not available.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Not available.
Comments	Information given is applicable to the product as supplied.

9.2. Other information

Other information	No information required.
Refractive index	Not available.
Particle size	Not available.
Molecular weight	Not available.
Volatility	Not available.
Saturation concentration	Not available.
Critical temperature	Not available.
Volatile organic compound	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The product will harden into a solid mass in contact with water and moisture.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not applicable. May polymerise.
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10.4. Conditions to avoid

Conditions to avoid	Avoid contact with water.
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10.5. Incompatible materials

10.6. Hazardous decomposition products

Hazardous decomposition Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 10,000.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 10,000.0

Species Rabbit

Acute toxicity - inhalation

ATE inhalation (gases ppm) 391,304.35

ATE inhalation (vapours mg/l) 956.52

ATE inhalation (dusts/mists mg/l) 2.76

Skin corrosion/irritation

Animal data Irritating.

Serious eye damage/irritation

Serious eye damage/irritation Moderately irritating.

Respiratory sensitisation

Respiratory sensitisation Sensitising.

Carcinogenicity

Carcinogenicity Suspected carcinogen based on limited evidence.

Target organ for carcinogenicity No specific target organs known.

Reproductive toxicity

Reproductive toxicity - development This substance has no evidence of toxicity to reproduction.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Morphological changes that are potentially reversible but provide clear evidence of marked organ dysfunction.

Aspiration hazard

Aspiration hazard Not anticipated to present an aspiration hazard, based on chemical structure.

Inhalation Irritating to respiratory system. May cause sensitisation by inhalation.

Ingestion May cause stomach pain or vomiting.

Skin contact Irritating to skin. May cause sensitisation by skin contact.

Safety Data Sheet: **Bauder Fleece – Backed Membrane Adhesive (blue) - Drum**

Eye contact	Irritation of eyes and mucous membranes.
Acute and chronic health hazards	May cause sensitisation by skin contact. The product contains small quantities of isocyanate. May cause respiratory allergy. May cause respiratory system irritation. Frequent inhalation of vapours may cause respiratory allergy.
Route of exposure	Inhalation Skin and/or eye contact
Medical symptoms	Irritation of eyes and mucous membranes. Coughing, chest tightness, feeling of chest pressure.
Medical considerations	Chronic respiratory and obstructive airway diseases.

Toxicological information on ingredients.

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 10,000.0

Species Rat

ATE oral (mg/kg) 10,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 9,400.0

Species Rabbit

ATE dermal (mg/kg) 9,400.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 1.5

Species Rat

ATE inhalation (dusts/mists mg/l) 1.5

Carcinogenicity

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

REACTION MASS OF 4'4 METHYLENEDIPHENYL DIISOCYANATE AND O-(P-ISOCYANATOBENZYL)PHENYL ISOCYANATE

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 9,400.0

Species Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 0.49

Species Rat

ATE inhalation (dusts/mists mg/l) 0.49

diphenylmethane-diisocyanate, isomers and homologues

Acute toxicity - oral

Acute toxicity oral
(LD₅₀mg/kg) 10,000.0

Species Rat

ATE oral (mg/kg) 10,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg) 9,400.0

Species Rabbit

ATE dermal (mg/kg) 9,400.0

Acute toxicity - inhalation

Acute toxicity inhalation
(LC₅₀ dust/mist mg/l) 1.5

Species Rat

ATE inhalation
(dusts/mists mg/l) 1.5

Skin corrosion/irritation

Animal data Irritating.

Serious eye damage/irritation

Serious eye
damage/irritation Moderately irritating.

Respiratory sensitisation

Respiratory sensitisation Sensitising.

Carcinogenicity

Carcinogenicity Suspected carcinogen based on limited evidence.

Target organ for
carcinogenicity No specific target organs known.

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

Reproductive toxicity

Reproductive toxicity -
development This substance has no evidence of toxicity to reproduction.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Morphological changes that are potentially reversible but provide clear evidence of marked organ dysfunction.

Aspiration hazard

Aspiration hazard Not anticipated to present an aspiration hazard, based on chemical structure.

Inhalation	Irritating to respiratory system. May cause sensitisation by inhalation.
Ingestion	May cause stomach pain or vomiting.
Skin contact	Irritating to skin. May cause sensitisation by skin contact.
Eye contact	Irritation of eyes and mucous membranes.
Acute and chronic health hazards	May cause sensitisation by skin contact. The product contains small quantities of isocyanate. May cause respiratory allergy. May cause respiratory system irritation. May cause respiratory system irritation. Frequent inhalation of vapours may cause respiratory allergy.
Route of exposure	Inhalation Skin and/or eye contact
Medical symptoms	Irritation of eyes and mucous membranes. Coughing, chest tightness, feeling of chest pressure.
Medical considerations	Chronic respiratory and obstructive airway diseases.

4'4-METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,000.0

Species Rat

ATE oral (mg/kg) 5,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 9,400.0

Species Rabbit

ATE dermal (mg/kg) 9,400.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 1.5

Species Rat

ATE inhalation (dusts/mists mg/l) 1.5

2,2'DIMORPHOLINYLDIETHYL ETHER

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,035.0

Species Rat

Notes (oral LD₅₀) No information available.

ATE oral (mg/kg) 2,035.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 3,038.0

Species Rabbit

Notes (dermal LD₅₀) No information available.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No information available.

Skin corrosion/irritation

Skin corrosion/irritation No information available.

Serious eye damage/irritation

Serious eye damage/irritation No information available.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation No information available.

Carcinogenicity

IARC carcinogenicity No component of this product present at levels greater than or equal to 0.1% identified as probable, possible or confirmed human carcinogen by IARC.

Inhalation May be harmful if inhaled. Spray/mists may cause respiratory tract irritation.
Ingestion May be harmful if swallowed.

Skin contact May be absorbed through the skin. May be harmful in contact with skin. May cause skin irritation.

Eye contact May cause eye irritation.

BENZOYL CHLORIDE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,900.0

Species Rat

ATE oral (mg/kg) 1,900.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 790.0

Species Rat

ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 1.45

Species Rat

ATE inhalation (vapours mg/l) 11.0

Carcinogenicity

IARC carcinogenicity IARC Group 2A Probably carcinogenic to humans.

Orthophosphoric acid 85%

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,530.0

Species Rat

ATE oral (mg/kg) 1,530.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,740.0

Species Rabbit

ATE dermal (mg/kg) 2,740.0

SECTION 12: Ecological information

Ecotoxicity The product is not expected to be hazardous to the environment.

Ecological information on ingredients.

diphenylmethane-diisocyanate, isomers and homologues

Ecotoxicity The product is not expected to be hazardous to the environment.

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: > 1000 mg/l, Freshwater fish

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >500 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: ~ 1640 mg/l, Scenedesmus subspicatus

Ecological information on ingredients.

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >1000 mg/l, Marinewater fish

Acute toxicity - aquatic invertebrates EC₅₀, 24 hours: >1000 mg/l, Daphnia magna

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates NOEC, 21 days: >10 mg/l, Daphnia magna

REACTION MASS OF 4'4 METHYLENEDIPHENYL DIISOCYANATE AND O-(P-ISOCYANATOBENZYL)PHENYL ISOCYANATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >1000 mg/l, Fish
Acute toxicity - aquatic invertebrates EC₅₀, 24 hours: >1000 mg/l, Daphnia magna
NOEC, 21 days: 10 mg/l, Daphnia magna
EC₅₀, 3 hours: >100 mg/l, Activated sludge

Acute toxicity - microorganisms

diphenylmethane-diisocyanate, isomers and homologues

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: > 1000 mg/l, Freshwater fish
Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >500 mg/l, Daphnia magna
Acute toxicity - aquatic plants EC₅₀, 72 hours: ~ 1640 mg/l, Scenedesmus subspicatus
Acute toxicity - microorganisms EC₅₀, 3 hours: 100 mg/l, Activated sludge

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 10 mg/l, Daphnia magna

4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with, butane-1,3-diol, 2,4'-diisocyanatodiphenylmethane,, 1,1'-methylenebis(4- isocyanatobenzene) homopolymer,, [(methylethylene)bis(oxy)]diprop anol and propane-1,2-diol

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: >1000 mg/l, Fish
Acute toxicity - aquatic invertebrates EC₅₀, 24 hours: >1000 mg/l, Daphnia magna
Acute toxicity - aquatic plants EC₅₀, 72 hours: >1640 mg/l, Algae
Acute toxicity - microorganisms EC₅₀, 3 hours: >100 mg/l, Activated sludge

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates NOEC, 21 days: >10 mg/l, Daphnia magna

4'4-METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 1000 mg/l, Fish

Acute toxicity - aquatic invertebrates	EC ₅₀ , 24 hours: 1000 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 1640 mg/l, Algae
Acute toxicity - microorganisms	EC ₅₀ , 3 hours: 100 mg/l, Bacteria
<u>Chronic aquatic toxicity</u>	
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 10 mg/l, Daphnia magna

2,2'DIMORPHOLINYLDIETHYL ETHER

<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	LC ₅₀ , 96 hours: 2150 mg/l,
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: >100 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: > 100 mg/l, Pseudokirchneriella subcapitata
Acute toxicity - microorganisms	EC ₅₀ , 3 hours: >1000 mg/l, Bacteria

BENZOYL CHLORIDE

<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	LC ₅₀ , 96 hours: 8.7 mg/l, Fish
Acute toxicity - aquatic invertebrates	Not available.
Acute toxicity - aquatic plants	Not available.
Acute toxicity - microorganisms	Not available.
Acute toxicity - terrestrial	Not available.

Orthophosphoric acid 85%

<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	No information available.
Acute toxicity - aquatic invertebrates	Not available.
Acute toxicity - aquatic plants	Not available.
Acute toxicity - microorganisms	Not available.
Acute toxicity - terrestrial	Not available.

12.2. Persistence and degradability

Persistence and degradability The product is not readily biodegradable.

Stability (hydrolysis) Reacts with water.

Biological oxygen demand < 10 g O₂/g

substance **Ecological information on ingredients.**

diphenylmethane-diisocyanate, isomers and homologues

Persistence and degradability The product is not readily biodegradable.

Stability (hydrolysis) Reacts with water.

Biological oxygen demand < 10 g O₂/g substance

12.3. Bioaccumulative potential

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Partition coefficient Not available.

Ecological information on ingredients.

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

Partition coefficient log Pow: 4.51

REACTION MASS OF 4'4 METHYLENEDIPHENYL DIISOCYANATE AND O-(P-ISOCYANATOBENZYL)PHENYL ISOCYANATE

Bioaccumulative potential log Pow: 4.51, BCF: 200,

diphenylmethane-diisocyanate, isomers and homologues

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Partition coefficient Not available.

4,4'-Methylenediphenyl diisocyanate, oligomeric reaction products with, butane-1,3-diol, 2,4'-diisocyanatodiphenylmethane,, 1,1'-methylenebis(4- isocyanatobenzene) homopolymer,, [(methylethylene)bis(oxy)]diprop anol and propane-1,2-diol

Bioaccumulative potential BCF: 200,

Partition coefficient log Pow: 6.17

4'4-METHYLENEDIPHENYL DIISOCYANATE, OLIGOMERS

Bioaccumulative potential BCF: 200,

Partition coefficient log Pow: 856

12.4. Mobility in soil

Mobility The product is non-volatile.

Ecological information on ingredients.

diphenylmethane-diisocyanate, isomers and homologues

Mobility The product is non-volatile.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

diphenylmethane-diisocyanate, isomers and homologues

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General Wear protective clothing as described in Section 8 of this safety data sheet.

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es) No

transport warning sign required.

Transport labels

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

National regulations	Health and Safety at Work etc. Act 1974 (as amended).
Restrictions (SI 2020 No. 1577 Annex XVII)	As from 24 August 2023 adequate training is required before industrial or professional use Entry number: 74

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Issued by	Compliance
Revision date	25.05.2022
Revision	2

Supersedes date	06/08/2020
SDS number	21168
Hazard statements in full	H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. 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. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure.
Store Between	Store Between 5°C-25°C

Bauder reserves the right to amend information and product specifications without prior notice. All reasonable care has been taken to ensure that all data is current at the time of print, however because Bauder pursues a policy of constant development we recommend ensuring that your copy of this information is current by contacting our Technical Department at technical@bauder.co.uk

Recommendations for use should be verified as to the suitability and compliance with actual requirements, specifications, installation techniques and any applicable laws and regulations.