

Revision Date: 20/10/2022

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

1.1. Product identifier		
Product name	Timbond 30 Min Polyurethane (PU) Adhesive 1.1kg	
Product code	AD056001	
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	Adkwik Unit F Dales Manor Business Park Grove Road, Sawston, Cambridge CB22 3TJ T: 01223 412373 E: tech@adkwik.co.uk www.adkwik.co.uk	
1.4. Emergency telephone number		
Emergency telephone	+44 (0) 01223 412373 (NOT 24HRS) Working Hours: Weekdays: 8am- 4.30pm (GMT)	
National emergency telephone number	National Poisons Information Service (UK) TEL: 0844 892 0111 (healthcare professionals only)	
SECTION 2: Hazards iden	tification	
2.1. Classification of the s	ubstance or mixture	
Classification (SI 2019 No. 72	20)	
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	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	<ul> <li>H332 Harmful if inhaled.</li> <li>H315 Causes skin irritation.</li> <li>H319 Causes serious eye irritation.</li> <li>H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</li> <li>H317 May cause an allergic skin reaction.</li> <li>H351 Suspected of causing cancer.</li> <li>H335 May cause respiratory irritation.</li> <li>H373 May cause damage to organs through prolonged or repeated exposure.</li> </ul>
Precautionary statements	<ul> <li>EUH204 Contains isocyanates. May produce an allergic reaction.</li> <li>P260 Do not breathe vapour/ spray.</li> <li>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</li> <li>P281 Use personal protective equipment as required.</li> <li>P284 [In case of inadequate ventilation] wear respiratory protection.</li> <li>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P313 Get medical advice/ attention.</li> <li>P501 Dispose of contents/ container in accordance with national regulations.</li> <li>RCH004a Persons already sensitised to diisocyanates may develop allergic reactions when using this product.</li> <li>RCH004b Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.</li> <li>RCH004c This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.</li> </ul>
Supplemental label information	As from 24 August 2023, adequate training is required before industrial or professional use
Contains	diphenylmethane-diisocyanate, isomers and homologues, DIPHENYLMETHANE-4,4'- DIISOCYANATE, DIPHENYLMETHANE-2,4'-DI-ISOCYANATE, DIPHENYLMETHANE-2,2'- DIISOCYANATE

## 2.3. Other hazards

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

## 3.2. Mixtures

diphenylmethane-diisocyanate, isomers and homologues

CAS number: 9016-87-9

#### 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 10-30%



# TIV BOND professional

CAS number: 101-68-8	EC number: 202-966-0	
<b>Classification</b> 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	1-5%
CAS number: 5873-54-1	EC number: 227-534-9	
<b>Classification</b> 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	<1%
		<1%
CAS number: 2536-05-2 <b>Classification</b> 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		<1%
CAS number: 2536-05-2 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		
CAS number: 2536-05-2 <b>Classification</b> 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 <b>Orthophosphoric acid 85%</b>	EC number: 219-799-4	
CAS number: 2536-05-2 <b>Classification</b> 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 <b>Orthophosphoric acid 85%</b> CAS number: 7664-38-2 <b>Classification</b> Met. Corr. 1 - H290 Acute Tox. 4 - H302 Skin Corr. 1B - H314	EC number: 219-799-4	



#### **SECTION 4: 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 imme	ediate medical attention and special treatment needed	
Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.	

## **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	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.

#### 6.2. Environmental precautions

**Environmental precautions** Do not discharge into drains or watercourses or onto the ground.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up 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.

#### 6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet.

#### **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.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage precautionsStore in closed original container at temperatures between 5°C and 25°C.Storage classChemical storage.7.3. Specific end use(s)The identified uses for this product are detailed in Section 1.2.

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

#### 8.1. Control parameters

#### **Occupational exposure limits**

#### diphenylmethane-diisocyanate, isomers and homologues

Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m<sup>3</sup> Short-term exposure limit (15-minute): WEL 0.07 mg/m<sup>3</sup>

## 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-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/m<sup>3</sup> Short-term exposure limit (15-minute): WEL 2 mg/m<sup>3</sup> WEL = Workplace Exposure Limit.

Ingredient comments	WEL = Workplace Exposure Limits	
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/m <sup>3</sup> Workers - Dermal; Short term local effects: 28.7 mg/cm <sup>2</sup> Workers - Inhalation; Short term local effects: 0.1 mg/m <sup>3</sup> Workers - Inhalation; Long term systemic effects: 0.05 mg/m <sup>3</sup> Workers - Inhalation; Long term local effects: 0.05 mg/m <sup>3</sup> General population - Dermal; Short term systemic effects: 25 mg/kg General population - Inhalation; Short term systemic effects: 20 mg/kg General population - Oral; Short term systemic effects: 20 mg/kg General population - Dermal; Short term local effects: 17.2 mg/cm <sup>2</sup> General population - Inhalation; Short term local effects: 0.05 mg/m <sup>3</sup> General population - Inhalation; Long term local effects: 0.025 mg/m <sup>3</sup>	
PNEC	- Fresh water; 1 mg/l	

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

- STP; 1 mg/l

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

DNEL	Workers - Inhalation; Short term systemic effects: 0.1 mg/m <sup>3</sup> Workers - Dermal; Short term local effects: 28.7 mg/cm <sup>2</sup> Workers - Inhalation; Short term local effects: 0.1 mg/m <sup>3</sup> Workers - Inhalation; Long term systemic effects: 0.05 mg/m <sup>3</sup> Workers - Inhalation; Long term local effects: 0.05 mg/m <sup>3</sup> 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 <sup>2</sup> Consumer - Inhalation; Short term local effects: 0.025 mg/m <sup>3</sup> Consumer - Inhalation; Long term local effects: 0.025 mg/m <sup>3</sup>
PNEC	- marine water; 0.1 mg/l - STP: 1 mg/l

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





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

Workers - Inhalation; Long term systemic effects: 7.28 mg/m <sup>3</sup>
Workers - Dermal; Long term systemic effects: 1 mg/kg bw/day
Consumer - Inhalation; Long term systemic effects: 1.8 mg/m <sup>3</sup>
Consumer - Dermal; Long term systemic effects: 0.5 mg/kg bw/day
Consumer - Oral; Long term systemic effects: 0.5 mg/kg bw/day
- Fresh water; 0.1 mg/l

PNEC

DNEL

- 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

#### Dioctyltindilaurat - PIC & SVHC (CAS: 3648-18-8)

DNEL

Consumer - Oral; Long term systemic effects: 0.0005 mg/kg bw/day Consumer - Inhalation; Long term systemic effects: 0.0009 mg/kg bw/day Workers - Inhalation; Long term systemic effects: 0.0035 mg/m<sup>3</sup>

## 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. This product is not to be used under conditions of poor ventilation. This product must not be handled in a confined space without adequate ventilation. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter is used.
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: Wear a respirator fitted with the following cartridge: ABEK2- P3 Particulate filter, type P3. When spraying, wear a suitable supplied-air respirator. Adequate ventilation would be not less than 3 to 5 air changes per hour in the work area. Open windows and doors to provide ventilation.
Environmental exposure controls	Keep container tightly sealed when not in use.
SECTION 9: Physical and c	hemical properties

## 9.1. Information on basic physical and chemical properties

Appearance	Coloured liquid.
Colour	Brown.
Odour	Musty (mouldy).



# SAFETY DATA SHEET



Odour threshold	Not available.
рН	Not available.
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	Not applicable.
Other flammability	Not available.
Vapour pressure	0.01 Pa @ °C
Vapour density	8.5
Relative density	1.12 @ 20°C
Bulk density	Not relevant.
Solubility(ies)	Insoluble in water. Hardens in contact with water.
Partition coefficient	Not available.
Auto-ignition temperature	>600°C
Decomposition Temperature	Not available.
Viscosity	Kinematic viscosity > 20.5 mm <sup>2</sup> /s.
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	Not relevant.





SECTION 10: Stability and	reactivity
10.1. Reactivity	
Reactivity	The product will harden into a solid mass in contact with water and moisture.
10.2. Chemical stability	
Stability	Stable at normal ambient temperatures and when used as recommended.
10.3. Possibility of hazardo	ous reactions
Possibility of hazardous reactions	Not applicable. May polymerise.
10.4. Conditions to avoid	
Conditions to avoid	Avoid contact with water.
10.5. Incompatible materia	als
Materials to avoid	Strong oxidising agents.
10.6. Hazardous decompo	sition products
Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.
SECTION 11: Toxicologica	l 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 (LD <sub>50</sub> mg/kg)	10,000.0
Species	Rabbit
Acute toxicity - inhalation	
Species	Rat
ATE inhalation (dusts/mists mg/l)	2.73
Skin corrosion/irritation	
Animal data	Irritating.
Serious eye damage/ irritation	
Serious eye damage/ irritation	Causes serious eye irritation.
Respiratory sensitisation	
Respiratory sensitisation	Sensitising.





Carcinogenicity	
Carcinogenicity	Suspected carcinogen based on limited evidence.
Target organ for carcinogenicity	No specific target organs known.
Specific target organ toxic	ity - repeated exposure
STOT - repeated exposure	Asthma, pulmonary sensitisation.
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. 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-diisocyanate, isomers and homologues	
Acute toxicity - oral	
Acute toxicity oral (LD <sub>50</sub> mg/kg)	10,000.0
Species	Rat
ATE oral (mg/kg)	10,000.0
Acute toxicity - dermal	
Acute toxicity dermal (LD <sub>50</sub> mg/kg)	9,400.0
Species	Rabbit
ATE dermal (mg/kg)	9,400.0
Acute toxicity - inhalation	
Acute toxicity inhalation $(LC_{50} dust/mist mg/l)$	1.5
Species	Rat
ATE inhalation (dusts/mists mg/l)	1.5





Skin corrosion/irritation	
Animal data	Irritating.
Serious eye damage/irrita	tion
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.
2,2'DIMORPHOLINYLDIETHY	L 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



## SAFETY DATA SHEET



## Acute toxicity - dermal

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Acute toxicity dermal (LD₅₀ mg/kg)	3,038.0
Species	Rabbit
Notes (oral LD <sub>50</sub> )	No information available.
Acute toxicity - inhalation	
Notes (inhalation $LC_{50}$ )	No information available.
Skin corrosion/irritation	
Skin corrosion/irritation	No information available.
Serious eye damage/irritatior	n
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% is 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.
Dioctyltindilaurat - PIC & SVH	IC
Acute toxicity - oral	
Acute toxicity oral (LD₅₀ mg/kg)	2,010.0
Species	Rat
ATE oral (mg/kg)	2,010.0
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 (LD $_{50}$ mg/kg)	790.0
Species	Rat





ATE dermal (mg/kg)	1,100.0
Acute toxicity - inhalation	
Acute toxicity inhalation (LC <sub>50</sub> 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 ing	redients.
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	$EC_{50}$ , 48 hours: >500 mg/l, Daphnia magna
Acute toxicity - aquatic plants	$EC_{50}$ , 72 hours: ~ 1640 mg/l, Scenedesmus subspicatus
Ecological information on ingredients.	
diphenylmethane-diisocyanate, isomers and homologues	
Acute aquatic toxicity	
Acute toxicity - fish	LC50, 96 hours: > 1000 mg/l, Freshwater fish
Acute toxicity - aquatic invertebrates	EC <sub>50</sub> , 48 hours: >500 mg/l, Daphnia magna



# SAFETY DATA SHEET



Acute toxicity - aquatic plants	$EC_{50}$ , 72 hours: ~ 1640 mg/l, Scenedesmus subspicatus
Acute toxicity - microorganisms	$EC_{50}$ , 3 hours: 100 mg/l, Activated sludge
Chronic aquatic toxicity	
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 10 mg/l, Daphnia magna
2,2'DIMORPHOLINYLDIETHY	L ETHER
Acute aquatic toxicity	
Acute toxicity - fish	LC <sub>50</sub> , 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 <sub>50</sub> , 3 hours: >1000 mg/l, Bacteria
BENZOYL CHLORIDE	
Acute aquatic toxicity	
Acute toxicity - fish	LC₅₀, 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%	
Acute aquatic toxicity	
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 deg	radability
Persistence and degradability	The product is not readily biodegradable.
Stability (hydrolysis)	Reacts with water.
Biological oxygen demand	$< 10 \text{ g O}_2/\text{g substance}$





Ecological information on ingredients.		
diphenylmethane-diisocyana	te, isomers and homologues	
Persistence and degradability	The product is not readily biodegradable.	
Stability (hydrolysis)	Reacts with water.	
Biological oxygen demand	< 10 g O <sub>2</sub> /g substance	
12.3. Bioaccumulative pote	ential	
Bioaccumulative potential	The product does not contain any substances expected to be bioaccumulating.	
Partition coefficient	Not available.	
Ecological information on ing	redients.	
diphenylmethane-diisocyana	te, isomers and homologues	
Bioaccumulative potential	The product does not contain any substances expected to be bioaccumulating	
Partition coefficient	Not available.	
12.4. Mobility in soil		
Mobility	The product is non-volatile.	
Ecological information on ingredients.		
diphenylmethane-diisocyana	te, isomers and homologues	
Mobility	The product is non-volatile.	
12.5. Results of PBT and v	PvB assessment	
Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.	
Ecological information on ing	redients.	
diphenylmethane-diisocyana	te, 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	5	
Other adverse effects	Not determined.	
SECTION 13: Disposal con	siderations	
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		





## 14.3. Transport hazard class(es)

#### 14.4. Packing group

14.5. Environmental hazards

#### Environmentally hazardous substance/marine pollutant

No

14.6. Special precautions for user

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

#### **SECTION 15: Regulatory information**

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

National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). Health and Safety at Work etc. Act 1974 (as amended). Control of Substances Hazardous to Health Regulations 2002 (as amended).
Guidance	Isocyanates: Health hazards and precautionary measures EH16. Introduction to Local Exhaust Ventilation HS(G)37. Approved Classification and Labelling Guide (Sixth edition) L131.
Authorisations (SI 2020 No. 1577 Annex XIV)	No specific authorisations are known for this product.
Restrictions (SI 2020 No. 1577 Annex XVII)	Entry number: 56 Methylenediphenyl diisocyanate (MDI) Entry number: 74 As from 24 August 2023 adequate training is required before industrial or professional use

## 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## **SECTION 16: Other information**

General information	Only trained personnel should use this material.
Revision comments	Revised classification. new scientific data Isocyanate training statement added to supplementary label information
Issued by	Compliance
Revision date	20/10/2022
Hazard statements in full	<ul> <li>H290 May be corrosive to metals.</li> <li>H302 Harmful if swallowed.</li> <li>H314 Causes severe skin burns and eye damage.</li> <li>H315 Causes skin irritation.</li> <li>H317 May cause an allergic skin reaction.</li> <li>H319 Causes serious eye irritation.</li> <li>H332 Harmful if inhaled.</li> <li>H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</li> <li>H335 May cause respiratory irritation.</li> <li>H351 Suspected of causing cancer.</li> <li>H373 May cause damage to organs through prolonged or repeated exposure.</li> </ul>
Store Between	Store Between 5°C-25°C

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

