

SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

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

1.1. Product identifier

Product name Arc Polyurethane Wood Adhesive 5min 310ml
Product number PUWA001

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 Arc Building Products
 IDA Business & Technology Park
 Arklow
 Co. Wicklow
 Ireland
 T: +353 (0)402 32370
 F: +353 (0)402 24168
 E: sales@arcbuildingproducts.ie

1.4. Emergency telephone number

Ireland **NPIC - National Poison Information Centre**
 Members of the Public: +353 (01) 8092166 (8.00 am to 10.00 pm - 7 days a week)
 Healthcare Professionals: +353 (01) 8092566 (24 hour service)

United Kingdom +44 (1785) 272650
Europe 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

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

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

EUH204 Contains isocyanates. May produce an allergic reaction.
 P260 Do not breathe vapour/ spray.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P281 Use personal protective equipment as required.
 P284 [In case of inadequate ventilation] wear respiratory 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.
 P313 Get medical advice/ attention.
 P501 Dispose of contents/ container in accordance with national regulations.
 RCH004a Persons already sensitised to diisocyanates may develop allergic reactions when using this product.
 RCH004b Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.
 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.

Supplemental label information

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

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

2.3. Other hazards**SECTION 3: Composition/information on ingredients****3.2. Mixtures**

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE		30-60%
CAS number: 101-68-8	EC number: 202-966-0	REACH registration number: 01-2119457014-47

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

2,2'DIMORPHOLINYLDIETHYL ETHER			1-5%
CAS number: 6425-39-4	EC number: 229-194-7	REACH registration number: 01-2119969278-20-0000	
Classification			
Eye Irrit. 2 - H319			

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	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. 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 precautions Store in closed original container at temperatures between 5°C and 25°C.

Storage class Chemical storage.

7.3. Specific end use(s)

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-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)

WEL = Workplace Exposure Limit.

Ingredient comments WEL = Workplace Exposure Limits

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

DNEL	<p>Workers - Inhalation; Short term systemic effects: 0.1 mg/m³</p> <p>Workers - Dermal; Short term local effects: 28.7 mg/cm²</p> <p>Workers - Inhalation; Short term local effects: 0.1 mg/m³</p> <p>Workers - Inhalation; Long term systemic effects: 0.05 mg/m³</p> <p>Workers - Inhalation; Long term local effects: 0.05 mg/m³</p> <p>Consumer - Dermal; Short term systemic effects: 25 mg/kg bw/day</p> <p>Workers - Dermal; Short term systemic effects: 50 mg/kg bw/day</p> <p>Consumer - Oral; Short term systemic effects: 20 mg/kg bw/day</p> <p>Consumer - Dermal; Short term local effects: 17.2 mg/cm²</p> <p>Consumer - Inhalation; Short term local effects: 0.05 mg/m³</p> <p>Consumer - Inhalation; Long term systemic effects: 0.025 mg/m³</p> <p>Consumer - Inhalation; Long term local effects: 0.025 mg/m³</p> <p>Consumer - Inhalation; Short term systemic effects: 0.05 mg/m³</p>
PNEC	<p>- marine water; 0.1 mg/l</p> <p>- STP; 1 mg/l</p> <p>- Fresh water; 1 mg/l</p> <p>- Soil; 1 mg/kg</p>

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

DNEL	<p>Workers - Inhalation; Long term systemic effects: 7.28 mg/m³</p> <p>Workers - Dermal; Long term systemic effects: 1 mg/kg bw/day</p> <p>Consumer - Inhalation; Long term systemic effects: 1.8 mg/m³</p> <p>Consumer - Dermal; Long term systemic effects: 0.5 mg/kg bw/day</p> <p>Consumer - Oral; Long term systemic effects: 0.5 mg/kg bw/day</p>
PNEC	<p>- Fresh water; 0.1 mg/l</p> <p>- marine water; 0.01 mg/l</p> <p>- Intermittent release; 1 mg/l</p> <p>- Sediment (Freshwater); 8.2 mg/kg</p> <p>- Sediment (Marinewater); 0.82 mg/kg</p> <p>- STP; 100 mg/l</p> <p>- Soil; 1.58 mg/kg</p>

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 (i.e. type A1 according to standard EN 14387) 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: ABEK2-P3 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 chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	Cream.
Odour	Musty (mouldy).
Odour threshold	Not available.
pH	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	1.10 @ 20°C
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	Kinematic viscosity > 20.5 mm ² /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.

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 hazardous reactions

Possibility of hazardous reactions Not applicable. May polymerise.

10.4. Conditions to avoid

Conditions to avoid Avoid contact with water.

10.5. Incompatible materials

10.6. Hazardous decomposition 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: 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

Species Rat

ATE inhalation (dusts/mists mg/l) 3.66

Skin corrosion/irritation

Skin corrosion/irritation Causes skin 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 toxicity - single exposure

STOT - single exposure Asthma, pulmonary sensitisation.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure may cause damage to organs through prolonged or repeated exposure

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.

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 1.5
(LC₅₀ dust/mist mg/l)

Species Rat

ATE inhalation 1.5
(dusts/mists mg/l)

Carcinogenicity

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

2,2'DIMORPHOLINYLDIETHYL ETHER

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 2,025.0
mg/kg)

Species Rat

Notes (oral LD₅₀) No information available.

Acute toxicity - dermal

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

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% 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.

SECTION 12: Ecological information

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

2,2'DIMORPHOLINYLDIETHYL ETHER
Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 2150 mg/l,

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >100 mg/l, Daphnia magna

Acute toxicity - microorganisms EC₅₀, 3 hours: >1000 mg/l, Bacteria

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

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

12.4. Mobility in soil

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.

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 The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

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 The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).
Control of Pollution Act 1974.

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Restrictions (Annex XVII Regulation 1907/2006) Entry number: 56 Methylenediphenyl diisocyanate (MDI) Entry number: 74



15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	Revised classification. Isocyanate training statement added to supplementary label information
Issued by	Compliance
Revision date	08/10/2021
Revision	
Supersedes date	
SDS status	Approved.
Hazard statements in full	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. 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
Contains isocyanate	NO

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.