

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 1000g

Product number PUWA002

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 (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.

Physicochemical Vapours are heavier than air and may travel along the floor and accumulate in the bottom of

containers.

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.

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.

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

Contains diphenylmethane-diisocyanate, isomers and homologues, DIPHENYLMETHANE-4,4'-DI-

ISOCYANATE, DIPHENYLMETHANE-2,4'-DI-ISOCYANATE, DIPHENYLMETHANE-2,2'-DI-

ISOCYANATE

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

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

diphenylmethane-diisocyanate, isomers and homologues

10-30%

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

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

10-30%

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

1-5%

CAS number: 5873-54-1 EC number: 227-534-9

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



DIPHENYLMETHANE-2,2'-DI-ISOCYANATE

<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

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.

Protection of first aidersFirst aid personnel should wear appropriate protective equipment during any rescue.

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.

Specific treatments Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing Do not use water jet as an extinguisher, as this will spread the fire.

media

5.2. Special hazards arising from the substance or mixture



Specific hazards The product is non-combustible. Irritating gases or vapours. Not known.

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.

Advice on general

occupational hygiene

Wash promptly with soap and water if skin becomes contaminated. Preventive industrial

medical examinations should be carried out.

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-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

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

 $\label{long-term} \mbox{Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m3(Sen)} \\ \mbox{Short-term exposure limit (15-minute): WEL 0.07 mg/m3(Sen)}$

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/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/lSoil; 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/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

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. Mechanical ventilation or local exhaust ventilation may be required. This product must not be handled in a confined space without adequate ventilation.

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: Neoprene.

Other skin and body

Hygiene measures

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

protection

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. If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P3. In confined or poorly-ventilated spaces, a

supplied-air respirator must be worn.

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.

pН Estimated value. pH (concentrated solution): 7-8

0.01 Pa @ °C

<10°C Melting point

330°C @ mbar Initial boiling point and range

Flash point >200°C Closed cup.

Evaporation rate slow

Evaporation factor Not available. Flammability (solid, gas) Not available. Not available. Other flammability

Vapour density 8.5

Vapour pressure

1.12 @ 20°C Relative density **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 >2000 cP @ 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.

10.2. Chemical stability

Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous

Not applicable. May polymerise.

reactions

10.4. Conditions to avoid

Conditions to avoid Avoid contact with water.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or

products vapours. Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects No information available.



Acute toxicity - inhalation

ATE inhalation (dusts/mists

mg/l)

2.73

Skin corrosion/irritation

Animal data Irritating.

Serious eye damage/irritation

Serious eye damage/irritation Moderately irritating.

Respiratory sensitisation

Respiratory sensitisation Sensitising.

Skin sensitisation

Skin sensitisation Not determined.

Carcinogenicity

Carcinogenicity Suspected carcinogen based on limited evidence.

Target organ for

carcinogenicity

No specific target organs known.

Reproductive toxicity

Reproductive toxicity - fertility Not available.

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.

General information No specific health hazards known.

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.

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 3,038.0

mg/kg)

Rabbit **Species**

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

No information available.

damage/irritation

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.

BENZOYL CHLORIDE

Acute toxicity - oral

Acute toxicity oral (LD₅o

1,900.0

mg/kg)

Species Rat

ATE oral (mg/kg) 1,900.0

Acute toxicity - dermal



Acute toxicity dermal (LD50 790.0

mg/kg)

Species Rat

ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation

Acute toxicity inhalation

(LC50 vapours mg/l)

Species Rat

ATE inhalation (vapours

mg/l)

11.0

1.45

Carcinogenicity

IARC carcinogenicity IARC Group 2A Probably carcinogenic to humans.

Orthophosphoric acid 85%

Acute toxicity - oral

Acute toxicity oral (LD₅o

mg/kg)

1,530.0

Species Rat

ATE oral (mg/kg) 1,530.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 2,740.0

mg/kg)

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.

12.1. Toxicity

Acute aquatic toxicity

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

Acute toxicity - aquatic

invertebrates

EC₅o, 48 hours: >500 mg/l, Daphnia magna

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

Ecological information on ingredients.

2,2'DIMORPHOLINYLDIETHYL ETHER

Acute aquatic toxicity

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

Acute toxicity - aquatic

invertebrates

EC₅o, 48 hours: >100 mg/l, Daphnia magna



Acute toxicity - aquatic

plants

EC₅₀, 72 hours: > 100 mg/l, Pseudokirchneriella subcapitata

Acute toxicity - microorganisms

._

EC₅₀, 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 -

Not available.

microorganisms

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 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.

12.4. Mobility in soil

Mobility The product is non-volatile.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB

This product does not contain any substances classified as PBT or vPvB.

assessment

12.6. Other adverse effects

Other adverse effects None known.



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 methodsDispose of waste to licensed waste disposal site in accordance with the requirements of the

local Waste Disposal Authority.

Waste class 15 01 10* packaging containing residues of or contaminated by hazardous substances liquid

adhesive: EWC 08-05-01

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)

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 Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

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

1577 Annex XVII) Entry number: 74

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information



Revised classification. new scientific data Isocyanate training statement added to **Revision comments**

supplementary label information

Issued by Compliance Revision date

Revision

Supersedes date

SDS number 20419

Hazard statements in full H315 Causes skin irritation.

08/03/2022

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

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.