



SAFETY DATA SHEET
ARDEX X 60 PU FLEX
Component B

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name ARDEX X 60 PU FLEX Component B

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

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

1.3. Details of the supplier of the safety data sheet

Supplier Ardex UK Limited
Homefield Road
Haverhill
Suffolk
CB9 8QP
Tel. 01440 714939
Fax. 01440 716667
Contact Person safetydatasheets@ardex.co.uk

1.4. Emergency telephone number

+44 (0)870 190 6777 (24 hours)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)
Physical and Chemical Hazards Not classified.
Human health 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
Environment Not classified.
Classification (1999/45/EEC) Xn; R20, R48/20. Carc. Cat. 3; R40. R42/43. Xi; R36/37/38.
The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

2.2. Label elements

Contains 4,4' - Methylendiphenyldiisocyanate
Diphenylmethandiisocyanate, isomers and homologues
DIPHENYLMETHANE-2,4'-DI-ISOCYANATE

Label In Accordance With (EC) No. 1272/2008



Signal Word Danger
Hazard Statements

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.

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	H351	Suspected of causing cancer.
	H373	May cause damage to organs through prolonged or repeated exposure.
Precautionary Statements		
	P102	Keep out of reach of children.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P281	Use personal protective equipment as required.
	P285	In case of inadequate ventilation wear respiratory protection.
	P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P308+313	IF exposed or concerned: Get medical advice/attention.
	P313	Get medical advice/attention.
	P314	Get medical advice/attention if you feel unwell.
	P342+311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
	P501	Dispose of contents/container to ...
Supplementary Precautionary Statements		
	P201	Obtain special instructions before use.
	P202	Do not handle until all safety precautions have been read and understood.
	P271	Use only outdoors or in a well-ventilated area.
	P272	Contaminated work clothing should not be allowed out of the workplace.
	P260	Do not breathe vapour/spray.
	P261	Avoid breathing vapour/spray.
	P264	Wash contaminated skin thoroughly after handling.
	P321	Specific treatment (see medical advice on this label).
	P302+352	IF ON SKIN: Wash with plenty of soap and water.
	P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P304+341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P312	Call a POISON CENTER or doctor/physician if you feel unwell.
	P332+313	If skin irritation occurs: Get medical advice/attention.
	P333+313	If skin irritation or rash occurs: Get medical advice/attention.
	P337	If eye irritation persists:
	P362	Take off contaminated clothing and wash before reuse.
	P363	Wash contaminated clothing before reuse.
	P403+233	Store in a well-ventilated place. Keep container tightly closed.
	P405	Store locked up.
Supplemental label information		
	EUH204	Contains isocyanates. May produce an allergic reaction.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

4,4' - Methylendiphenyldiisocyanate	<15 %
CAS-No.: 101-68-8	EC No.: 202-966-0
Classification (EC 1272/2008)	Classification (67/548/EEC)
Acute Tox. 4 - H332	Xn;R20,R48/20.
Skin Irrit. 2 - H315	Carc. Cat. 3;R40.
Eye Irrit. 2 - H319	Xi;R36/37/38.
Resp. Sens. 1 - H334	R42/43.
Skin Sens. 1 - H317	
Carc. 2 - H351	
STOT SE 3 - H335	
STOT RE 2 - H373	

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Diphenylmethandiisocyanate, isomers and homologues		70-90%
CAS-No.: 9016-87-9	EC No.: 618-498-9	
Classification (EC 1272/2008) 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	Classification (67/548/EEC) Xn;R20,R48/20. Carc. Cat. 3;R40. Xi;R36/37/38. R42/43.	

DIPHENYLMETHANE-2,4'-DI-ISOCYANATE		<15 %
CAS-No.: 5873-54-1	EC No.: 227-534-9	
Classification (EC 1272/2008) 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	Classification (67/548/EEC) Xn;R20 R42/43 Xi;R36/37/38	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information

Soiled, soaked clothing and shoes must be immediately removed, decontaminated and disposed of.

Inhalation

Take the person into the fresh air and keep him warm, let him rest; if there is difficulty in breathing, medical advice is required.

Ingestion

DO NOT induce vomiting. Get medical attention immediately.

Skin contact

In the event of contact with the skin, preferably wash with a cleanser based on polyethylene glycol or with plenty of warm water and soap.

Consult a doctor in the event of a skin reaction.

Eye contact

Hold the eyes open and rinse with preferably lukewarm water for a sufficiently long period of time (at least 10 minutes). Contact an ophthalmologist.

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

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

The product irritates the respiratory tract and may trigger sensitisation of the skin and respiratory tract. Treatment of acute irritation or bronchial constriction is primarily symptomatic. Extended medical treatment may be required depending on the degree of exposure and the severity of the symptoms.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Carbon dioxide (CO₂), Foam, extinguishing powder, in cases of larger fires, water spray should be used.

Unsuitable extinguishing media

High volume water jet.

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5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

Burning releases carbon monoxide, carbon dioxide, oxides of nitrogen, isocyanate vapours and traces of hydrogen cyanide. In the event of fire and/or explosion do not breath fumes.

Unusual Fire & Explosion Hazards

Fire in vicinity poses risk of pressure build-up and rupture. Containers at risk from fire should be cooled with water and, if possible, removed from the danger area.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Don not allow contaminated extinguishing water to enter the soil, ground-water or surface waters.

Protective equipment for fire-fighters

During the fire-fighting respirator with independent air-supply and airtight garment is required.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions

Do not allow to escape into waterways, wastewater or soil.

6.3. Methods and material for containment and cleaning up

Collect spillage with granulates, sawdust, rags or other absorbent. Prevent discharge of larger quantity to drain. Do not let washing down water contaminate ponds or waterways.

6.4. Reference to other sections

For further disposal measures see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid eating, drinking and smoking when using the product. Avoid spilling, skin and eye contact. Avoid inhalation of vapours/spray and contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container. Keep upright. Store above freezing.

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

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
DIPHENYLMETHANE-2,4'-DI-ISOCYANATE	WEL		0.02 mg/m3(Sen)		0.07 mg/m3(Sen)	

WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective equipment



Engineering measures

Observe occupational exposure limits and minimize the risk of inhalation of vapours.

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Respiratory equipment

If ventilation is insufficient, suitable respiratory protection must be provided. Chemical respirator with organic vapour cartridge.

Hand protection

For prolonged or repeated skin contact use suitable protective gloves. Nitrile gloves are recommended.

Eye protection

Use safety goggles and face shield in case of splash risk.

Hygiene measures

Use appropriate skin cream to prevent drying of skin.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Brown.
Odour	Unpleasant.
Solubility	Immiscible with water
Initial boiling point and boiling range (°C)	>300
Melting point (°C)	30
Relative density	1.23
pH-Value, Conc. Solution	5 - 8.5
Viscosity	100 mPas
Flash point (°C)	229

9.2. Other information

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reaction with: Acids.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

Avoid frost. Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials To Avoid

Strong acids.

10.6. Hazardous decomposition products

In case of fire, toxic gases (CO, CO₂, NO_x) may be formed.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity:

Acute Toxicity (Oral LD₅₀)

> 10000 mg/kg Rat

Acute Toxicity (Dermal LD₅₀)

> 9400 mg/kg Rabbit

Acute Toxicity (Inhalation LC₅₀)

310 mg/l (vapours) Rat 4 hours

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General information

Known or suspected carcinogen for humans.

Inhalation

Vapours may irritate throat and respiratory system and cause coughing.

Ingestion

May cause stomach pain or vomiting.

Skin contact

Prolonged contact may cause redness and irritation.

Eye contact

Irritation, burning, lachrymation, blurred vision after liquid splash.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Acute Toxicity - Fish

LC0 96 hours > 1000 mg/l Brachydanio rerio (Zebra Fish)

LC50 96 hours > 1000 mg/l Brachydanio rerio (Zebra Fish)

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours > 1000 mg/l Daphnia magna

Acute Toxicity - Microorganisms

EC50 3 hours > 100 mg/l Activated sludge

Acute Toxicity - Terrestrial

EC50 24 hours > 100 mg/l Soil Microorganisms

12.2. Persistence and degradability

12.3. Bioaccumulative potential

Bioaccumulative potential

The product is not bioaccumulating.

12.4. Mobility in soil

Mobility:

Semi-mobile.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

SECTION 13: DISPOSAL CONSIDERATIONS

General information

The packaging should be collected for reuse.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Do not allow runoff to sewer, waterway or ground. Confirm disposal procedures with environmental engineer and local regulations.

Waste Class

08 04 10: adhesive and sealant waste with exception of 08 04 09

SECTION 14: TRANSPORT INFORMATION

General

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

14.1. UN number

14.2. UN proper shipping name

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14.3. Transport hazard class (es)

Transport Labels

No transport warning sign required.

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 73/78 and the IBC Code

SECTION 15: REGULATORY INFORMATION

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

EU Legislation

Dangerous Preparations Directive 1999/45/EC. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Water hazard classification

WGK 2

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Issued By

Research & Development Manager

Risk Phrases In Full

R20	Harmful by inhalation.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R36/37/38	Irritating to eyes, respiratory system and skin.
R40	Limited evidence of a carcinogenic effect.
R42/43	May cause sensitisation by inhalation and skin contact.

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 <<Organs>> through prolonged or repeated exposure.