

Material Safety Data Sheet (MSDS)

FastCoat Pro PU Joint Sealer

Section 1: Identification of the Mixture and of the Company / Undertaking.

1.1 Product identifier.

Product Name: FastCoat PU Joint Sealant

Product Code: P180

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

sealer

Uses advised against:

Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: Liquid Roofing Systems Ltd

Address: Prees Green

City: Shropshire

Telephone: 01948 841 877

Fax: 01948 841 854

E-mail: info@lrs-systems.co.uk

Web: lrs-systems.co.uk

1.4 Emergency telephone number: 01948 841 877 (Only available during office hours)

Section 2: Hazards Identification.

2.1 Classification of the mixture.

In accordance with Regulation (EU) No 1272/2008:

Resp. Sens. 1: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2 Label elements.

Labelling in accordance with Regulation (EU) No 1272/2008:

Pictograms:



Signal Word:

Danger

H statements:

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

P statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P284 [In case of inadequate ventilation] wear respiratory protection.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor/...

P501 Dispose of contents/container as hazardous waste

EUH statements:

EUH204 Contains isocyanates. May produce an allergic reaction.

Contains:

4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate

2.3 Other hazards.

In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

Section 3: Composition / Information on Ingredients

3.1 Substances.

Not Applicable.

3.2 Mixtures.

Substances posing a danger to health or the environment in accordance with the Regulation (EC) No. 1272/2008, assigned a Community exposure limit in the workplace, and classified as PBT/vPvB or included in the Candidate List:

Identifiers	Name	Concentrate	(*)Classification - Regulation (EC) No 1272/2008	
			Classification	specific concentration limit
Index No: 601-022-00-9 CAS No: 1330-20-7 EC No: 215-535-7 Registration No: 01-2119488216-32-XXXX	[1] xylene (Mixture of isomers)	0 - 10 %	Acute Tox. 4 *, H312 - Acute Tox. 4 *, H332 - Flam. Liq. 3, H226 - Skin Irrit. 2, H315	-
Index No: 615-005-00-9 CAS No: 101-68-8 EC No: 202-966-0 Registration No: 01-2119457014-47-XXXX	4,4'-methylenediphenyl diisocyanate, diphenylmethane-4,4'-diisocyanate	0.1 - 1 %	Acute Tox. 4 *, H332 - Carc. 2, H351 - Eye Irrit. 2, H319 - Resp. Sens. 1, H334 - Skin Irrit. 2, H315 - Skin Sens. 1, H317 - STOT RE 2 *, H373** - STOT SE 3, H335	Eye Irrit. 2, H319: C ≥ 5 % Skin Irrit. 2, H315: C ≥ 5 % Resp. Sens. 1, H334: C ≥ 0,1 % STOT SE 3, H335: C ≥ 5 %

(*)The complete text of the H phrases is given in section 16 of this Safety Data Sheet.

*, ** See Regulation (EC) No. 1272/2008, Annex VI, section 1.2.

[1] Substance with a Community workplace exposure limit (see section 8.1).

Section 4: First Aid Measures.

4.1 Description of first aid measures.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

Inhalation.

Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration. Do not administer anything orally. If unconscious, place them in a suitable position and seek medical assistance.

Eye contact.

If wearing contact lenses, remove them. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance.

Skin contact.

Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners.

Ingestion.

If accidentally ingested, seek immediate medical attention. Keep calm. NEVER induce vomiting.

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

Harmful Product, prolonged exposure due to inhalation may cause anaesthetic effects and the need for immediate medical assistance.

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

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

Section 5: Firefighting Measures.

The product does not present any particular risk in case of fire.

5.1 Extinguishing media. Recommended extinguishing methods.

Extinguisher powder or CO₂. In case of more serious fires, also alcohol-resistant foam and water spray. Do not use a direct stream of water to extinguish.

5.2 Special hazards arising from the mixture. Special risks.

Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.

Fire protection equipment.

According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and gloves.

Section 6: Accidental Release Measures.

6.1 Personal precautions, protective equipment and emergency procedures.

For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Prevent the contamination of drains, surface or subterranean waters, and the ground.

6.3 Methods and material for containment and cleaning up.

Pick up the spill with non-combustible absorbent materials (soil, sand, vermiculite, diatomite, etc.). Pour the product and the absorbent in an appropriate container. The contaminated area should be immediately cleaned with an appropriate de- contaminator. Pour the decontaminator on the remains in an opened container and let it act various days until no further reaction is produced.

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

Section 7: Handling and Storage.

7.1 Precautions for safe handling.

For personal protection, see section 8. Never use pressure to empty the containers. They are not pressure-resistant containers. In the application area, smoking, eating, and drinking must be prohibited.

Follow legislation on occupational health and safety.

Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.

Store according to local legislation. Observe indications on the label. Store the containers between 5 and 35° C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorized persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

The product is not affected by Directive 2012/18/EU (SEVESO III).

7.3 Specific end use(s).

Not available.

Section 8: Exposure Controls / Personal Protection.

8.1 Control parameters.

Work exposure limit for:

Name	CAS No.	Country	Limit value	ppm	mg/m ³
xylene (Mixture of isomers)	1330-20-7	European Union [1]	Eight hours	50 (skin)	221 (skin)
			Short term	100 (skin)	442 (skin)
		United Kingdom [2]	Eight hours	50	220
			Short term	100	441

[1] According both Binding Occupational Exposure Limits (BOELVs) and Indicative Occupational Exposure Limits (IOELVs) adopted by Scientific Committee for Occupational Exposure Limits to Chemical Agents (SCOEL).

[2] According Limit Value (IOELV) list in 2nd Indicative Occupational Exposure adopted by Health and Safety Executive.

The product does NOT contain substances with Biological Limit Values. Concentration levels DNEL/DMEL:

Name	DNEL/DMEL	Type	Value
xylene (Mixture of isomers) CAS No: 1330-20-7 EC No: 215-535-7	DNEL (Workers)	Inhalation, Long-term, Systemic effects	77 (mg/m ³)
4,4'-methylenediphenyl diisocyanate,diphenylmethane-4,4'-diisocyanate CAS No: 101-68-8 EC No: 202-966-0	DNEL (Workers)	Inhalation, Long-term, Local effects	0,05 (mg/m ³)
	DNEL (Workers)	Inhalation, Long-term, Systemic effects	0,05 (mg/m ³)

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated. DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

8.2 Exposure controls.

Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Concentration:	100 %		
Uses:	sealer		
Breathing protection:			
If the recommended technical measures are observed, no individual protection equipment is necessary.			
Hand protection:			
PPE:	Protective gloves.		
Characteristics:	«CE» marking, category II.		
CEN standards:	EN 374-1, En 374-2, EN 374-3, EN 420		
Maintenance:	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.		
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.		
Material:	PVC (polyvinyl chloride)	Breakthrough time (min.):	> 480
		Material thickness (mm):	0,35
Eye protection:			
PPE:	Face shield.		
Characteristics:	«CE» marking, category II. Face and eye protector against splashing liquid.		
CEN standards:	EN 165, EN 166, EN 167, EN 168		
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions. Make sure that mobile parts move smoothly.		
Observations:	Face shields should offer a field of vision with a dimension in the central line of, at least, 150 mm vertically once attached to the frame.		
Concentration:	100 %		
Uses:	sealer		
Breathing protection:			
If the recommended technical measures are observed, no individual protection equipment is necessary.			
Hand protection:			
PPE:	Protective gloves.		
Characteristics:	«CE» marking, category II.		
CEN standards:	EN 374-1, En 374-2, EN 374-3, EN 420		
Maintenance:	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.		
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.		
Material:	PVC (polyvinyl chloride)	Breakthrough time (min.):	> 480
		Material thickness (mm):	0,35
Eye protection:			
PPE:	Face shield.		
Characteristics:	«CE» marking, category II. Face and eye protector against splashing liquid.		
CEN standards:	EN 165, EN 166, EN 167, EN 168		
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions. Make sure that mobile parts move smoothly.		
Observations:	Face shields should offer a field of vision with a dimension in the central line of, at least, 150 mm vertically once attached to the frame.		
Concentration:	100 %		
Uses:	sealer		
Breathing protection:			
If the recommended technical measures are observed, no individual protection equipment is necessary.			
Hand protection:			
PPE:	Protective gloves.		
Characteristics:	«CE» marking, category II.		

CEN standards:	EN 374-1, En 374-2, EN 374-3, EN 420		
Maintenance:	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.		
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.		
Material:	PVC (polyvinyl chloride)	Breakthrough time (min.):	> 480
		Material thickness (mm):	0,35
Eye protection:			
PPE:	Face shield.		
Characteristics:	«CE» marking, category II. Face and eye protector against splashing liquid.		
CEN standards:	EN 165, EN 166, EN 167, EN 168		
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions. Make sure that mobile parts move smoothly.		
Observations:	Face shields should offer a field of vision with a dimension in the central line of, at least, 150 mm vertically once attached to the frame.		

Section 9: Physical and Chemical Properties.

9.1 Information on basic physical and chemical properties.

Appearance: Paste with characteristic colour and odour Colour: Depending on pigmentation

Odour: characteristic

Odour threshold. /N.A. pH: Unavailable

Melting point: Unavailable °C Boiling Point: - °C

Flash point: - °C

Evaporation rate: Unavailable In flammability (solid, gas): non-flammable Lower Explosive Limit: Unavailable

Upper Explosive Limit: N.A./N.A. Vapour pressure: Unavailable Vapour density: Unavailable

Relative density: 1.4 g/cm³ Solubility: Soluble in acetone Lip solubility: soluble Hydro solubility: Slightly soluble

Partition coefficient (n-octanol/water): Unavailable Auto-ignition temperature: N.A./N.A.

Decomposition temperature: N.A./N.A.

Viscosity: N.A./N.A.

Explosive properties: Unavailable Oxidizing properties: Unavailable

N.A./N.A.= Not Available/Not Applicable due to the nature of the product

9.2 Other information.

Pour point: Unavailable Blink: Unavailable Kinematic viscosity: -

N.A./N.A.= Not Available/Not Applicable due to the nature of the product.

Section 10: Stability and Reactivity.

10.1 Reactivity.

The product does not present hazards by their reactivity.

10.2 Chemical stability.

Stable under the recommended handling and storage conditions (see section 7).

10.3 Possibility of hazardous reactions.

The product does not present possibility of hazardous reactions.

10.4 Conditions to avoid.

Avoid any improper handling.

10.5 Incompatible materials.

Keep away from oxidising agents and from highly alkaline or acidic materials in order to prevent exothermic reactions.

10.6 Hazardous decomposition products.

No decomposition if used for the intended uses.

Section 11: Toxicological Information.

11.1 Information on toxicological effects.

Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.

Exposure to concentrations of solvent fumes above the work exposure limit can have negative effects (for example, irritation of the mucous membranes and respiratory system, adverse effects on the kidneys, liver, and the central nervous system). Among the symptoms are headaches, vertigo, fatigue, muscular weakness, drowsiness, and in extreme cases, unconsciousness.

Based on the properties of isocyanates and taking into account existing technical data on similar products, it appears that this product may cause irritation and / or acute awareness of the respiratory system, leading to an asthmatic condition, a wheezing and chest pressure. Therefore, sensitized individuals may show asthmatic symptoms when exposed to atmospheres containing concentrations below the level of exposure. Repeated exposure can lead to chronic respiratory diseases.

Toxicological information about the substances present in the composition.

Name	Acute toxicity			
	Type	Test	Kind	Value
xylene (Mixture of isomers) CAS No: 1330-20-7 EC No: 215-535-7	Oral	LD50	Rata/Rat	4300 mg/kg bw [1] [1] AMA Archives of Industrial Health. Vol. 14, Pg. 387, 1956
	Dermal	LD50	Rabbit/Cone jo	> 1700 mg/kg bw [1] [1] Raw Material Data Handbook, Vol.1: Organic Solvents, 1974. Vol. 1, Pg. 123, 1974
	Inhalation	LC50	Rat/Rata	21,7 mg/l/4 h [1] [1] Raw Material Data Handbook, Vol.1: Organic Solvents, 1974. Vol. 1, Pg. 123, 1974

a) acute toxicity;

Not conclusive data for classification.

b) skin corrosion/irritation;

Based on available data, the classification criteria are not met.

c) serious eye damage/irritation;

Based on available data, the classification criteria are not met.

d) respiratory or skin sensitisation; Product classified:

Respiratory sensitiser, Category 1: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

e) germ cell mutagenicity;

Not conclusive data for classification.

f) carcinogenicity;

Based on available data, the classification criteria are not met.

g) reproductive toxicity;

Not conclusive data for classification.

h) STOT-single exposure;

Based on available data, the classification criteria are not met.

i) STOT-repeated exposure;

Based on available data, the classification criteria are not met.

j) aspiration hazard;

Not conclusive data for classification.

Section 12: Ecological Information.

12.1 Toxicity.

Name	Ecotoxicity			
	Type	Test	Kind	Value
xylene (Mixture of isomers) CAS No: 1330-20-7 EC No: 215-535-7	Fish	LC50	Fish/Pez	15,7 mg/l (96 h) [1] [1] Bailey, H.C., D.H.W. Liu, and H.A. Javitz 1985. Time/Toxicity Relationships in Short-Term Static, Dynamic, and Plug-Flow Bioassays. In: R.C.Bahner and D.J.Hansen (Eds.), Aquatic Toxicology and Hazard Assessment, 8th Symposium, ASTM STP 891, Philadelphia, PA :193-212
	Aquatic invertebrates	LC50	Crustacean	8,5 mg/l (48 h) [1] [1] Tatem, H.E., B.A. Cox, and J.W. Anderson 1978. The Toxicity of Oils and Petroleum Hydrocarbons to Estuarine Crustaceans. Estuar.Coast.Mar.Sci. 6(4):365-373. Tatem, H.E. 1975. The Toxicity and Physiological Effects of Oil and Petroleum Hydrocarbons on Estuarine Grass Shrimp Palaemonetes pugio (Holthuis). Ph.D.Thesis, Texas A&M University, College Station, TX :133 p
	Aquatic plants			

12.2 Persistence and degradability.

No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potencial.

No information is available regarding the bioaccumulation of the substances present.

12.4 Mobility in soil.

No information is available about the mobility in soil.

The product must not be allowed to go into sewers or waterways. Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.

No information is available about the results of PBT and vPvB assessment of the product.

12.6 Other adverse effects.

No information is available about other adverse effects for the environment.

Section 13: Disposal Considerations.

13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.

Follow the provisions of Directive 2008/98/EC regarding waste management.

Section 14: Transport Information.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

14.1 UN number.

Transportation is not dangerous.

14.2 UN proper shipping name.

Description:

ADR: Transportation is not dangerous. IMDG: Transportation is not dangerous. ICAO: Transportation is not dangerous.

14.3 Transport hazard class(es).

Transportation is not dangerous.

14.4 Packing group.

Transportation is not dangerous.

14.5 Environmental hazards.

Transportation is not dangerous.

14.6 Special precautions for user.

Transportation is not dangerous.

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

Transportation is not dangerous.

Section 15: Regulatory Information.

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

The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.

Volatile organic compound (VOC)

Product Subcategory (Directive 2004/42/EC): Two-pack reactive performance coatings for specific end use such as floors, solvent- borne

Phase I* (from 01/01/2007): 550 g/l Phase II* (from 01/01/2010): 500 g/l (*) g/l ready to use

VOC content (p/p): 0 % VOC content: 140 g/l

The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

The product is not affected by Directive 2012/18/EU (SEVESO III).

The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.

The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

15.2 Chemical safety assessment.

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Section 16: Other Information.

Complete text of the H phrases that appear in section 3:

H226 Flammable liquid and vapour.

H312 Harmful in contact with skin.

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.

Classification codes:

Acute Tox. 4 [Dermal]: Acute toxicity (Dermal), Category 4 Acute Tox. 4 [Inhalation] : Acute toxicity (Inhalation), Category 4 Carc. 2: Carcinogen, Category 2

Eye Irrit. 2: Eye irritation, Category 2 Flam. Liq. 3: Flammable liquid, Category 3

Resp. Sens. 1: Respiratory sensitiser, Category 1 Skin Irrit. 2: Skin irritant, Category 2

Skin Sens. 1: Skin sensitiser, Category 1

STOT RE 2: Specific target organ toxicity following a repeated exposure, Category 2 STOT SE 3 : Specific target organ toxicity following a single exposure, Category 3

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly. Abbreviations and acronyms used:

CEN: European Committee for Standardization.

DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.

EC50: Half maximal effective concentration. PPE: Personal protection equipment.

LC50: Lethal concentration, 50%. LD50: Lethal dose, 50%.

Key literature references and sources for data: <http://eur-lex.europa.eu/homepage.html>
<http://echa.europa.eu/>

Regulation (EU) 2015/830. Regulation (EC) No 1907/2006. Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

Legal Notes

The information, and in particular, the recommendations relating to the application and the end use of FastCoat Pro PU Joint Sealer, are given in good faith based on LRS current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with LRS recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no guarantee in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. LRS reserves the right to change the properties of its products. The proprietary rights of the third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local product data sheet for the product concerned, copies of which will be supplied on request.