

# Permaflor1 Pedestal Adhesive

## Single Component Polyurethane Pedestal Adhesive

Permaflor1 is a single component, Zero VOC, solvent free, moisture curing polyurethane system specially formulated for fixing pedestals used in access flooring. When cured, Permaflor1 has excellent adhesion to concrete and other surfaces and to most materials likely to be used in the access flooring industry.

### Packaging and Mix Ratio

Permaflor1 is supplied as a pre measured 9kg metal pail.

### Handling & Storage

Permaflor 1 is classified as harmful by inhalation but is not classed as hazardous for transportation.

Good standards of industrial hygiene should be observed when handling the material. The use of protective gloves is highly recommended and users should consider the use of goggles if splashing during mixing is a possibility.

The recommendations made in the Health and Safety data sheet for this product should be observed at all times. Permaflor 1 contains 4,4' diphenyl-methanediisocyanate and the advice contained in the Permaflor Health and Safety Data Sheet is of particular importance.



### Typical Applications

Permaflor1 is particularly suited to use in the bonding of metal pedestals to concrete floors. It is flexible and does not foam excessively during application giving a more solid feel than products that need to foam in order to gap-fill. Permaflor 1 can be used on substrates between -5°C and 35°C but should not be applied to wet or frosty surfaces. Full cure may take up to one week in cold temperatures.



### Coverage

When used correctly a typical rate of 220 to 240 pedestals per 9.000kg Unit should be expected (please note that the coverage rate may vary with different substrates and application methods).



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### Installation

Permaflor 1 needs no mixing or stirring and can be spread using a knife or squeegee or, more often, by dipping the pedestal into the mix. The rheology of the product is designed to allow the correct amount, for a relatively flat floor, to be held on the pedestal when used in this manner. The material remains in a mobile, liquid form for approximately 4-5 hours, after which the material sets into a soft solid, getting progressively harder over a period of a few days. Tubs can be re-sealed. Any skin formed should be removed. Product under the skin will be perfectly fit for use.

### Technical Information

Viscosity @ 25°C (cps)	50000 max (stirred)
Specific Gravity	1.3 – 1.4
Colour	Grey
Solids	100%
Flash Point	>200 (closed cup)
Volatility	0.00001 mbar (Zero VOC's)

### Order Detail

A full pallet of Permaflor1 consists of 100 x 9kg units but can be bought singularly or on a per project basis.

### Related Documentation & Services

Permaflor 1 MSDS (Material Safety Data Sheet).

### Disposals

The condition of this product will determine the required method of disposal. Used containers with fully cured product remaining around the edges or bottom of the container should have the hazard label removed or obscured before disposal as general building waste. Uncured / liquid product should be disposed of as hazardous waste.

### Contact Details

#### Supplier

Permaflor  
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Hereford  
HR2 6JT

Tel: +44 (0)1432 347722  
info@permaflor.co.uk  
www.permaflor.co.uk

#### Manufacturer

Star Uretech  
Enterprise House  
Hollin Bridge Street  
Blackburn, Lancashire  
BB2 4AY

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www.star-uretech.com



## SAFETY DATA SHEET

### Permaflor1 9.0Kg 1 Part Pedestal Adhesive

#### 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

##### 1.1 Product Identifier

**Product Name:** Permaflor1 Pedestal Adhesive 9.0kg  
**Internal ID:** BTG1 9.0-00-3  
**Container Size:** 8 Litre Metal Pail

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

**Use / Description of Product:** Pedestal Adhesive (Access Flooring)

##### 1.3 Details of the supplier of the Safety Data Sheet

**Company Name:** Star Uretech Ltd  
 Enterprise House, Hollin Bridge Street  
 Blackburn  
 Lancashire  
 BB2 4AY  
 United Kingdom

**Emergency Tel: +44 (0) 1256 663444**

#### 2. HAZARDS IDENTIFICATION

##### 2.1 Classification of the substance or mixture

###### Classification (EC 1272/2008)

Physical and Chemical Hazards: No classified.  
 Human Health: Resp. Sens. 1- H334  
 Environment: Not Classified.

**Classification (1999/45/EEC)** R42: Full test for all R phrases and hazard statements in Section 16.

##### 2.2 Label Elements

**Contains:** DIPHENYL METHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES

**Label in Accordance with (EC) No 1272/2008**



<p><b>Signal:</b> Danger</p> <p><b>Hazard Statements:</b> H334</p>	<p>May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p>
<p>P103</p> <p>P261</p> <p>P250</p> <p>P342 + 311</p> <p>P402 + 404</p> <p>P501</p>	<p>Read Label before use..</p> <p>Avoid breathing vapour / spray.</p> <p>Do not subject to spraying.</p> <p>If experiencing respiratory symptoms: Call a doctor or physician.</p> <p>Store in a dry place. Store in closed container.</p> <p>Dispose of contents / container in accordance with national regulations.</p>



**3. COMPOSITION / INFORMATION ON INGREDIENTS****3.2 Mixtures**

<b>DIPHENYL METHANE DIISOCYANATE, ISOMERS AND HOMOLOGUES</b>		<b>&lt; 1%</b>
<b>CAS-No: 9016-87-9</b>	<b>EC No:</b>	
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	Classification (67/548/EEC) Xn;R20,R48/20. Carc. Cat. 3;R40. Xi;R36/37/38. R42/43.	

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

**Ingredient notes**

These hazards (Section 3) refer to a base raw material of which trace quantities may be found in this product. The hazards detailed in (Section 2) are specific to this product.

**Composition Comments**

The product contains a polyisocyanate mixture based on diphenylmethane diisocyanate (MDI). The Free MDI monomer level is below 1%.

**SECTION 4: FIRST AID MEASURES****4.1. Description of first aid measures****General information**

**Please note:** Effects may be delayed. Keep affected person under observation.

**Inhalation**

Move the exposed person to fresh air and keep warm and at rest. Get prompt medical attention. Asthma-like symptoms may develop and may be immediate or delayed up to several hours.

**Ingestion**

Rinse mouth with water. Never make an unconscious person vomit or drink fluids. Seek medical attention if discomfort continues.

**Eye contact**

Immediately flush with water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Continue to rinse eye and seek medical attention.

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

May cause an asthma-like shortness of breath.

**Ingestion**

Due to the physical nature of this material it is unlikely that swallowing will occur. May cause discomfort if swallowed.

**Skin contact**

Discoloration of the skin. Prolonged skin contact may cause redness and irritation.

**Eye contact**

Irritating and may cause redness and pain.

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

This product can irritate the respiratory tract in sensitised persons. Treatment of acute irritation or bronchial constriction is primarily symptomatic.

**SECTION 5: FIRE FIGHTING MEASURES****5.1. Extinguishing media****Extinguishing media**

Extinguish with foam, carbon dioxide or dry powder. In case of larger fires, water spray, foam, dry powder and carbon dioxide may be used.



## 5.2. Special hazards arising from the substance or mixture

### Specific Hazards

Fires or high temperatures can create carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) nitrous gases (NO<sub>x</sub>) and trace levels of isocyanate vapour or hydrogen cyanide (HCN).

## 5.3. Advice for firefighters

### Special Fire Fighting Procedures

Avoid breathing fire vapours. For larger fires: Use air-supplied respirators to protect against gases or fumes. Containers close to a fire should be removed or cooled with water.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

In case of spills beware of slippery floors and surfaces. Avoid contact with skin and eyes. Wear protective gloves and goggles.

### 6.2. Environmental precautions

This product is of a high viscosity and is unlikely to spread far. The product will slowly cure when exposed to water or atmospheric moisture. Avoid ingress where blockages may occur.

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

Allow to cure or mechanically remove excess product with damp absorbent material (e.g. sand, sawdust or a chemical binder based on calcium silicate). After approximately one hour transfer to a waste container that must remain unsealed. Keep damp in a safe, well ventilated place until waste material has gone solid and bound together.

## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Whilst it is good practice to ensure adequate ventilation when using any chemicals, the volatility of the isocyanate used in this product is such that it is not possible for the WEL to be reached even in sealed areas when using this product as intended. Atmospheric and clinical monitoring, during manufacture and installation have failed to detect the presence of any isocyanate. WEL = Workplace Exposures Limit.

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

Store in the original, unopened container at a temperature between 5°C and 25°C.

### 7.3. Specific end use(s)

Moisture curing adhesive for use in raised access flooring.

### Usage Description

This product is designed for bonding metal pedestals used in the access flooring industry. The user should apply the product by dipping the base of the pedestal into the adhesive. Due to the method of application, accidental exposure is likely to be minimal under normal conditions.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Control parameters

Name	STD	TWA - 8 Hours		STEL - 15 Min		Notes
DIPHENYL METHANE DIISOCYANATE, ISOMERS HOMOLOGUES	WEL		0.02 mg/m <sup>3</sup> (Sen)		0.07 mg/m <sup>3</sup> (Sen)	

WEL = Workplace Exposure Limit.

### Ingredient Comments

Any person suffering from hypersensitivity of the respiratory tract (e.g. Those who suffer from asthma or who are prone to respiratory ailments) should not work with this product. Repeated exposure to isocyanate vapour in already sensitised workers can result in severe asthma attacks, even at levels below acceptable working limits.

### 8.2 Exposure Controls

#### Protective Equipment



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**Process conditions**

Under normal conditions this product will be used in relatively open areas with natural ventilation. As this product has a very low vapour pressure (<0.00001mbar) the normal type of working environment will provide sufficient ventilation when the product is used as intended.

**Engineering measures**

The supplier has carried out monitoring exercises on various polyisocyanates of this type. Results show that if they are handled at room temperature or lower and in the manner detailed within this document then it is highly unlikely that even 10% of the Working Exposure Limit could be reached.

**Respiratory equipment**

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.

**Hand protection**

Gloves of nitrile rubber, PVA or Viton are recommended.

**Eye protection**

If risk of splashing, wear safety goggles or face shield.

**Other Protection**

Wear suitable protective clothing as protection against splashing or contamination.

**Hygiene measures**

Wash promptly with soap & water if skin becomes contaminated.

**Skin protection**

Ensure bare skin is covered, for instance by overalls, to avoid any risk of skin contact as a result of splashes or spills.

**9. PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

Appearance:	Viscous liquid.
Colour:	Red.
Odour:	Slight odour.
Initial boiling point and boiling range:	>300 760 mm Hg
Melting point (°C):	<5
Relative density:	1.4 20°C
Vapour pressure:	<0.00001 mbar 25°C
Viscosity:	200-500 mPas 20°C
Flash point:	>200 CC (Closed cup).
Auto Ignition Temperature (°C):	>500

**9.2. Other information**

Volatility Description:	(<0.00001 mbar) 2.5 million times less volatile than water. This product contains no VOC's.
Volatile Organic Compound (VOC):	None

**10. STABILITY AND REACTIVITY****10.1. Reactivity****10.2. Chemical stability**

Stable under normal temperature conditions and recommended use.

**10.3. Possibility of hazardous reactions****Hazardous Polymerisation**

May polymerise over 200°C with the evolution of carbon dioxide gas and heat.

**10.4. Conditions to avoid**

This product will cure into a solid mass by reaction with atmospheric moisture. Avoid heat, flames and sources of ignition.

**10.5. Incompatible materials****Materials To Avoid**

Amines.

**10.6. Hazardous decomposition products**

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### **Toxic Dose 1 - LD 50**

>2000 mg/kg (oral rat)

#### **Inhalation**

Harmful by inhalation. Irritating to respiratory system. May cause sensitisation by inhalation.

#### **Skin contact**

Irritating to skin.

#### **Eye contact**

Irritating to eyes.

#### **Health Warnings**

Information about inhalation of polymeric MDI aerosols is available, however this product is not designed to be spray applied and such aerosols will not be formed when the product is used as intended.

#### **Medical Symptoms**

Prolonged contact with skin may cause irritant effects. Respiratory irritation, difficulty breathing, coughing, wheezing and shortness of breath.

## 12. ECOLOGICAL INFORMATION

### **12.1. Toxicity**

#### **Acute Fish Toxicity**

LC0 > 1000mg/l Danio rerio (zebra fish) 96h. Method :OECD Test Guideline 203.

**EC 50, 48 Hrs, Daphnia, mg/l** >1000

### **12.2. Persistence and degradability**

#### **Degradability**

The product is not readily biodegradable.

### **12.3. Bioaccumulative potential**

### **12.4. Mobility in soil**

### **12.5. Results of PBT and vPvB assessment**

### **12.6. Other adverse effects**

## 13: DISPOSAL CONSIDERATIONS

### **General information**

The condition of this product will determine the required method of disposal. Used containers with fully cured product remaining around the edges or bottom of the container should have the hazard label removed or obscured before disposal as general building waste. Uncured/Liquid product should be disposed of as hazardous waste.

### **13.1. Waste treatment methods**

When disposing of the used containers, ensure that they are empty of as much product as possible. Leave the containers to allow the residual product to cure. Once the product is cured (set) it is no longer hazardous. Remove or permanently obscure the label and then the container can be disposed of as building waste.

## 14: TRANSPORT INFORMATION

### **General**

Product not classified as hazardous under transport regulations

### **14.1. UN number**

### **14.2. UN proper shipping name**

### **14.3. Transport hazard class(es)**

### **Transport Labels**

No transport warning sign required.

### **14.4. Packing group**

### **14.5. Environmental hazards**

### **14.6. Special precautions for user**

### **14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**



**15: OTHER INFORMATION****General information**

**PLEASE NOTE** :- This document is a Safety Data Sheet (SDS or MSDS) . It is not in itself a COSHH Assessment. The information found in this Safety Data Sheet can be used when carrying out a COSHH assessment but it cannot provide all the information that will be required as this will be specific to each individual situation eg. limitations of the location where the product is to be used etc.

**Information Sources**

www.hse.gov.uk www.defra.gov.uk www.isopa.org/isopa/ www.star-uretech.com

**Revision Comments**

It should be noted that the full risk and hazard phrases detailed below explain the abbreviations used in Section 3 of the document, which lists ingredients used in the manufacture of this product. These do not represent the hazards associated with the use of this product. The hazard identification of this product is found in section 2 of this document and should be the basis of your COSHH assessment and other Risk management measures. For additional guidance on COSHH assessments please visit our web site (www.star-uretech.com) or consult the relevant information provided from the agencies listed above.

Star Uretech take our REACH/CLP responsibilities seriously and endeavour to provide the most accurate (and up to date) information to our customers, enabling them to remain within the law and implement the appropriate operating conditions and risk management measures to protect their employees and the environment.

**Issued By** Mark Almond (Star Uretech - Operations Manager)

**Revision Date** 02/04/12

**Revision** 7

**Risk Phrases In Full**

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

**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.

**Disclaimer**

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.

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