

Safety data sheet

According to 91/155 EEC

Printing date 22.11.2010

Version number 29

Revision: 22.11.2010









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

- **Product identifier**
- **Trade name:** PU-S Paste Colourless
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** Adhesives
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Forbo Siegling Pty. Ltd
Factory 1, 124-126 Rodeo Drive
Dandenong South
Victoria 3175. Australia
Ph.: 1300137933
Fax: 1300137944
- **Information department:**
Chemical Laboratory
Email: Claudius.Hayduk@forbo.com
- **Emergency telephone number:**
(001) 352 323 3500 (Transport hazardous materials)
++49 (0) 511-6704-214

2 Composition/information on ingredients

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

| | | |
|--------------------------------------|--|---------|
| CAS: 117-81-7 EINECS: 204-211-0 | bis(2-ethylhexyl) phthalate  T R60-61 | 2.5-10% |
| CAS: 26471-62-5 EINECS: 247-722-4 | m-tolyldiene diisocyanate  T+ R26;  Xn R40;  Xn R42/43;  Xi R36/37/38 R52/53 | < 2.5% |
| CAS: 101-77-9 EINECS: 202-974-4 | 4,4'-diaminodiphenylmethane  T R45-39/23/24/25;  Xn R48/20/21/22-68;  Xi R43 R5 | < 0.5% |

- **SVHC**

| | |
|----------|-----------------------------|
| 117-81-7 | bis(2-ethylhexyl) phthalate |
| 101-77-9 | 4,4'-diaminodiphenylmethane |

- **Additional information** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



T; Toxic

R45-60-61-23: May cause cancer. May impair fertility. May cause harm to the unborn child. Toxic by inhalation.



Xn; Harmful

R40: Limited evidence of a carcinogenic effect.



Xn; Sensitising

R42/43: May cause sensitisation by inhalation and skin contact.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- **Classification system:**

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

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- **Label elements**

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

- **Code letter and hazard designation of product:**



T Toxic

- **Hazard-determining components of labelling:**

m-tolylidene diisocyanate
4,4'-diaminodiphenylmethane
bis(2-ethylhexyl) phthalate

- **Risk phrases:**

45 May cause cancer.
60 May impair fertility.
61 May cause harm to the unborn child.
23 Also toxic by inhalation.
40 Limited evidence of a carcinogenic effect.
42/43 May cause sensitisation by inhalation and skin contact.

- **Safety phrases:**

53 Avoid exposure - obtain special instructions before use.
4 Keep away from living quarters.
23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
60 This material and its container must be disposed of as hazardous waste.

- **Special labelling of certain preparations:**

Contains isocyanates. See information supplied by the manufacturer

- **Information pertaining to particular dangers for man and environment**

- **Safety phrases:**

53 Avoid exposure - obtain special instructions before use.
4 Keep away from living quarters.
23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
60 This material and its container must be disposed of as hazardous waste.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

4 First aid measures

- **Description of first aid measures**

- **General information**

Immediately remove any clothing soiled by the product.
Remove breathing apparatus only after contaminated clothing have been completely removed.
In case of irregular breathing or respiratory arrest provide artificial respiration.

- **After inhalation**

Supply fresh air or oxygen; call for doctor.
In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing** If symptoms persist consult doctor.

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· Information for doctor MSDB

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5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Mount respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**



Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Emergency cooling must be available in case of nearby fire.
Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

117-81-7 bis(2-ethylhexyl) phthalate

| | |
|-----------------|--|
| NES (Australia) | Short-term value: 10 mg/m ³ |
| | Long-term value: 5 mg/m ³ |

26471-62-5 m-tolylidene diisocyanate

| | |
|-----------------|--|
| NES (Australia) | Short-term value: 0.07 mg/m ³ |
| | Long-term value: 0.02 mg/m ³ |
| | Sen |

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101-77-9 4,4'-diaminodiphenylmethane

| | |
|-----------------|----------------------------------|
| NES (Australia) | 0.81 mg/m ³ , 0.1 ppm |
| Sk | |

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment**

- **General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

- **Breathing equipment:**



more range filter ABEK

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Protection of hands:**

Solvent resistant gloves

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

Natural rubber, NR

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:** Safety glasses

- **Body protection:** Protective work clothing.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

| | |
|-------------------------|------------------------------------|
| Form: | Fluid |
| Colour: | According to product specification |
| Odour: | Odourless |
| Odour threshold: | Not determined. |

- **pH-value:** Not determined.

- **Change in condition**

| | |
|-------------------------------------|------------------------|
| Melting point/Melting range: | Melting point > 120 °C |
| Boiling point/Boiling range: | 385 °C |

- **Flash point:** 178 °C

- **Ignition temperature:** 370 °C

- **Decomposition temperature:** Not determined.

- **Self igniting** Product is not selfigniting

- **Danger of explosion:** Product does not present an explosion hazard.

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| | |
|---|--|
| · Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Vapour pressure: | Not determined. |
| · Density at 20°C: | 1.10731 g/cm ³ |
| · Relative density | Not determined. |
| · Vapour density | Not determined. |
| · Evaporation rate | Not determined. |
| · Solubility in / Miscibility with Water: | Not miscible or difficult to mix |
| · Segregation coefficient (n-octanol/water): | Not determined. |
| · Viscosity: | |
| dynamic at 20°C: | 20500 mPas |
| kinematic: | Not determined. |
| · Solvent content: | |
| Organic solvents: | 0.0 % |
| Solids content: | 9.5 % |
| · Other information | No further relevant information available. |

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** Reacts with acids, alkalis and oxidizing agents
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

117-81-7 bis(2-ethylhexyl) phthalate

| | | |
|--------|------|-----------------------|
| Oral | LD50 | >30000 mg/kg (rat) |
| Dermal | LD50 | >24500 mg/kg (rabbit) |

101-77-9 4,4'-diaminodiphenylmethane

| | | |
|------|------|-----------------|
| Oral | LD50 | 347 mg/kg (rat) |
|------|------|-----------------|

- **Primary irritant effect:**
- on the skin:** No irritant effect.
- on the eye:** No irritating effect.
- **Sensitization:**
- Sensitization possible through inhalation.
- Sensitization possible through skin contact.
- **Additional toxicological information:**
- The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
- Toxic
- Harmful
- Irritant
- Carcinogenic

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12 Ecological information

- **Toxicity**

- **Aquatic toxicity:**

| | | |
|---|----------|---------------------|
| 117-81-7 bis(2-ethylhexyl) phthalate | | |
| Oral | EC50/48h | >100 mg/l (daphnia) |
| Sensitisation | EC50/72h | >100 mg/l (algia) |

- **Persistence and degradability** No further relevant information available.

- **Behaviour in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation**



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Waste disposal key:** 080409

- **European waste catalogue**

| | |
|-----------|--|
| 08 04 09* | waste adhesives and sealants containing organic solvents or other dangerous substances |
|-----------|--|

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID (cross-border)**

- **ADR/RID class:** -

- **Maritime transport IMDG:**

- **IMDG Class:** -

- **Marine pollutant:** No

- **Air transport ICAO-TI and IATA-DGR:**

- **ICAO/IATA Class:** -

- **Special precautions for user** Not applicable.

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **Australian Inventory of Chemical Substances**

| | |
|------------|-----------------------------|
| 117-81-7 | bis(2-ethylhexyl) phthalate |
| 26471-62-5 | m-tolyldiene diisocyanate |

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101-77-9 | 4,4'-diaminodiphenylmethane

Standard for the Uniform Scheduling of Drugs and Poisons

101-77-9 | 4,4'-diaminodiphenylmethane

S7

Markings according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

Code letter and hazard designation of product:



T Toxic

Hazard-determining components of labelling:

m-tolylidene diisocyanate
 4,4'-diaminodiphenylmethane
 bis(2-ethylhexyl) phthalate

Risk phrases:

45 May cause cancer.
 60 May impair fertility.
 61 May cause harm to the unborn child.
 23 Also toxic by inhalation.
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Safety phrases:

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 60 This material and its container must be disposed of as hazardous waste.

Special labelling of certain preparations:

Contains isocyanates. See information supplied by the manufacturer

National regulations

Technical instructions (air):

| Class | Share in % |
|-------|------------|
| I | 2.7 |
| NK | 9.4 |

• **Water hazard class:** Water danger class 3 (Self-assessment): extremely hazardous for water.

• **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

R26 Very toxic by inhalation.
 R36/37/38 Irritating to eyes, respiratory system and skin.
 R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
 R40 Limited evidence of a carcinogenic effect.
 R42/43 May cause sensitisation by inhalation and skin contact.
 R43 May cause sensitisation by skin contact.
 R45 May cause cancer.
 R48/20/21/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
 R5 Heating may cause an explosion.

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R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R60 May impair fertility.
R61 May cause harm to the unborn child.
R68 Possible risk of irreversible effects.

· **Department issuing MSDS:** Chemical Laboratory

· **Contact:**

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