

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 23.07.2018

Version number 2

Revision: 23.07.2018

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

- **1.1 Product identifier**
- **Trade name:** Dichtbandage für Hart-PVC-Rohr
- **UFI-Code:** QM00-Q0M4-4005-FDCY
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Sealing
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Fermit GmbH  
Zur Heide 4,  
D- 53560 Vettelschoß  
www.fermit.de
- **Informing department:**  
Tel.: +49 (0) 2645-2207  
Fax: +49 (0) 2645-3113  
Email: info@fermit.de
- **1.4 Emergency telephone number:** Tel.: +49 (0) 2645-2207

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Carc. 2 H351 Suspected of causing cancer.  
STOT RE 2 H373 May cause damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2 H319 Causes serious eye irritation.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
STOT SE 3 H335 May cause respiratory irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS07



GHS08

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- **Signal word** Danger
- **Hazard-determining components of labelling:**  
diphenylmethane-4,4'-di-isocyanate  
methylenediphenyl diisocyanate
- **Hazard statements**  
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 the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.
- **Precautionary statements**  
P102 Keep out of reach of children.  
P261 Avoid breathing mist/vapours/spray.  
P264 Wash thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P501 Dispose of contents/container in accordance with local / regional / national / international regulations.
- **Additional information:**  
Contains isocyanates. May produce an allergic reaction.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of the substances listed below including additives not requiring identification.

**Dangerous components:**

CAS: 101-68-8 EINECS: 202-966-0 Reg.nr.: 01-2119457014-47-X	diphenylmethane-4,4'-di-isocyanate ⚠ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	10 - 25%
CAS: 26447-40-5 EINECS: 247-714-0 Reg.nr.: 01-2119457014-47-X	methylenediphenyl diisocyanate ⚠ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	≥ 1 - < 2.5%

**Non-dangerous components**

CAS: 65997-17-3 EINECS: 266-046-0 Reg.nr.: 01-2119488048-29-X	Glass, oxide, chemicals	50 - 100%
CAS: 25322-69-4 NLP: 500-039-8 Reg.nr.: 01-2119493630-37-X	Polypropylenglykol	25 - 50%

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### **SECTION 4: First aid measures**

- **4.1 Description of first aid measures**
- **General information** If symptoms occur or in case of doubt consult a doctor.
- **After inhalation**  
Move person to fresh air.  
In case of persistent symptoms consult doctor.
- **After skin contact**  
Instantly wash with water and soap and rinse thoroughly.  
In case of skin irritations or sensitizing effects, consult doctor.
- **After eye contact**  
Rinse opened eye for several minutes under running water.  
In case of permanent aches and pains please go and see the doctor.
- **After swallowing**  
Swallowing is not considered to be a possible way of exposure.  
Rinse out mouth.  
In case of persistent symptoms consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### **SECTION 5: Firefighting measures**

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray.  
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture**  
Can be released in case of fire:  
Carbon monoxide and carbon dioxide  
Inhalation of combustion gases may cause serious health hazards.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

### **SECTION 6: Accidental release measures**

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Avoid contact with eyes and skin.  
Ensure adequate ventilation
- **6.2 Environmental precautions:** Do not allow product to reach sewage system or water bodies.
- **6.3 Methods and material for containment and cleaning up:**  
Collect mechanically.  
Dispose of the material collected according to regulations.  
Clean preferably with cleaning agent; preferably don't use solvents.
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.

### **SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling**  
Don't eat, drink or smoke while working.

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Avoid direct contact with eyes, skin and clothing.

Do not breathe vapours.

- **Information about protection against explosions and fires:** No special measures required.

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage**

- **Requirements to be met by storerooms and containers:** No special requirements.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:** None.

- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**

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

WEL: workplace exposure limit

#### 101-68-8 diphenylmethane-4,4'-di-isocyanate

WEL (Great Britain)	Short-term value: 0.07 mg/m <sup>3</sup> Long-term value: 0.02 mg/m <sup>3</sup> Sen; as -NCO
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- **DNELs**

#### 101-68-8 diphenylmethane-4,4'-di-isocyanate

Inhalative	DNEL (worker, short-term, local)	0.1 mg/m <sup>3</sup> (human)
	DNEL (worker, long-term, local)	0.05 mg/m <sup>3</sup> (human)
	DNEL (consumer, short-term, local)	0.05 mg/m <sup>3</sup> (human)
	DNEL (consumer, long-term, local)	0.025 mg/m <sup>3</sup> (human)

#### 26447-40-5 methylenediphenyl diisocyanate

Inhalative	DNEL (worker, short-term, local)	0.1 mg/m <sup>3</sup> (human)
	DNEL (worker, long-term, local)	0.05 mg/m <sup>3</sup> (human)
	DNEL (consumer, short-term, local)	0.05 mg/m <sup>3</sup> (human)
	DNEL (consumer, long-term, local)	0.025 mg/m <sup>3</sup> (human)

- **PNECs**

#### 101-68-8 diphenylmethane-4,4'-di-isocyanate

PNEC aqua (freshwater)	1 mg/L (.)
PNEC aqua (marine water)	0.1 mg/L (.)
PNEC STP	1 mg/L (.)
PNEC soil	1 mg/kg soil dw (.)
PNEC aqua (intermittent releases)	10 mg/L (.)

#### 26447-40-5 methylenediphenyl diisocyanate

PNEC aqua (freshwater)	1 mg/L (.)
PNEC aqua (marine water)	0.1 mg/L (.)
PNEC STP	1 mg/L (.)
PNEC soil	1 mg/kg soil dw (.)
PNEC aqua (intermittent releases)	10 mg/L (.)

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

- **8.2 Exposure controls**

- **Personal protective equipment**

- **General protective and hygienic measures**

Do not eat or drink while working.

Avoid contact with the eyes and skin.

Wash hands during breaks and at the end of the work.

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Do not inhale gases / fumes / aerosols.

Keep away from foodstuffs, beverages and food.

· **Breathing equipment:**

Not necessary if room is well-ventilated.

Use breathing protection in case of insufficient ventilation.

Filter Type A.

· **Protection of hands:**

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

Use gloves of stable material (i.e. nitril rubber).

· **Material of gloves**

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

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**

In case of a layer thickness of 0.4 mm the penetration time is longer than 480 minutes.

· **Eye protection:**



Tightly sealed safety glasses.

**SECTION 9: Physical and chemical properties**

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:

Bandage

Colour:

Different according to colour

· **Odour:**

Characteristic

· **Odour threshold:**

Not determined.

· **pH-value:**

Not determined.

· **Change in condition**

Melting point/freezing point:

Not determined

Initial boiling point and boiling range:

Not determined

· **Flash point:**

Not applicable

· **Inflammability (solid, gaseous)**

Not applicable.

· **Decomposition temperature:**

Not determined.

· **Self-inflammability:**

Product is not selfigniting.

· **Explosive properties:**

Product is not explosive.

· **Vapour pressure:**

Not applicable.

· **Density**

Not determined

· **Relative density**

&gt; 1

· **Vapour density**

Not determined.

· **Evaporation rate**

Not determined.

· **Solubility in / Miscibility with**

Water:

Insoluble

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- |  |  |
|--|--|
| <b>· Partition coefficient: n-octanol/water:</b> | Not determined.                            |
| <b>· Viscosity:</b>                              |  |
| <b>dynamic:</b>                                  | Not determined.<br>Not applicable.         |
| <b>kinematic:</b>                                | Not determined.<br>Not applicable.         |
| <b>· 9.2 Other information</b>                   | No further relevant information available. |

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
None in case of intended use and storage in compliance with instructions.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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

#### 101-68-8 diphenylmethane-4,4'-di-isocyanate

Oral	LD50	> 7,616 mg/kg (rat) (OECD 401)
Dermal	LD50	> 9,400 mg/kg (rabbit) (OECD 402)
Inhalative	LC50	0.368 mg/l/4h (rat) (OECD 403)

#### 26447-40-5 methylenediphenyl diisocyanate

Dermal	LD50	10,000 mg/kg (rabbit)
Inhalative	LC50	0.4 mg/l/4h (rat) (OECD 403)

- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation**  
Causes serious eye irritation.
- **Respiratory or skin sensitisation**  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.

- **Repeated dose toxicity**

#### 101-68-8 diphenylmethane-4,4'-di-isocyanate

Inhalative	NOAEC (2y)	0.19 mg/m <sup>3</sup> (rat) (OECD 453)
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- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**  
Carc. 2
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity**  
Suspected of causing cancer.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure**  
May cause respiratory irritation.

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- **STOT-repeated exposure**  
May cause damage to the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### · 12.1 Toxicity

##### · Aquatic toxicity:

##### 101-68-8 diphenylmethane-4,4'-di-isocyanate

EC50 (static)	> 1,000 mg/l/24h (Daphnia magna) (OECD 202)
EC50 (static)	> 1,640 mg/l/72h (Desmodesmus subspicatus) (OECD 201)
LC0 (static)	> 3,000 mg/l/96h (Oryzias latipes)

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

- **Other information:** There are no data available about the preparation.

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

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

##### · Additional ecological information:

##### · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

- **12.5 Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

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

### SECTION 13: Disposal considerations

#### · 13.1 Waste treatment methods

- **Recommendation** Smaller quantities can be disposed with household waste.

##### · European waste catalogue

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 04 00	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 99	wastes not otherwise specified
HP 4	Irritant - skin irritation and eye damage
HP 5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP 7	Carcinogenic
HP 13	Sensitising

- **Uncleaned packagings:**

##### · Recommendation:

Dispose of packaging according to regulations on the disposal of packagings. Non contaminated packagings can be used for recycling.

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### SECTION 14: Transport information

· <b>14.1 UN-Number</b> · <b>ADR, ADN, IMDG, IATA</b>	Void
· <b>14.2 UN proper shipping name</b> · <b>ADR, ADN, IMDG, IATA</b>	Void
· <b>14.3 Transport hazard class(es)</b> · <b>ADR, ADN, IMDG, IATA</b> · <b>Class</b>	Void
· <b>14.4 Packing group</b> · <b>ADR, IMDG, IATA</b>	Void
· <b>14.5 Environmental hazards:</b>	Not applicable.
· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	Not dangerous according to the above specifications.
· <b>UN "Model Regulation":</b>	Void

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 56, 56a
- **National regulations**
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Substances of very high concern (SVHC) according to REACH, Article 57**
- None of the ingredients is contained.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
- 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 the respiratory system through prolonged or repeated exposure. Route of exposure: Inhalation.

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• **Department issuing data specification sheet:**

This Material Safety Data Sheet has been drawn up in cooperation with:  
DEKRA Assurance Services GmbH, Hanomagstr. 12, D-30449 Hanover, Germany,  
phone: (+49) 511 42079 - 0, reach@dekra.com.

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• **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

• **\* Data compared to the previous version altered.**

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